

Shipment Release Checklist – LC-1000

Final release gate: FAT status, hold-point NCR closure, deviations, documentation turnover and preservation controls.

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DATE	September 2026	PREPARED BY	Mohammad Al-Araidah
STATUS	Issued for independent engineering study	CLASSIFICATION	Synthetic data — not for production use

Independent engineering study. This document was created to demonstrate a structured approach to manufacturing quality for mission-critical equipment. The supplier, equipment, specifications and all results are synthetic. It is not design guidance, not a compliance assessment against any standard, and must not be used on a production programme.

Equipment

ITEM	DETAIL
Supplier	Northstar Thermal Systems
Model	LC-1000
Description	Liquid-to-liquid coolant distribution skid, nominal 1 MW
Skid serial number	_____

Closure chain

Release is the last gate in a chain. Each gate below carried its own evidence requirement, and no gate was cleared on an explanation.

GATE	STATUS	EVIDENCE
Supplier qualification	Conditional approval — 82 / 100	Three major findings: calibration system, weld traceability, NCR closure effectiveness.
Qualification conditions closed	Verified	Revised procedures plus worked evidence for each of the three findings, verified rather than accepted on submission.
Manufacturing readiness review	Ready with actions	Three open actions, each with an owner and a gate it blocks — none of them blocking fabrication start.
MRR actions closed	Verified	Configuration list completed, sub-tier flow-down confirmed, one full calibration recall cycle evidenced.
Production and in-process surveillance	Per ITP	Surveillance and witness points executed as planned; hold points released individually.

GATE	STATUS	EVIDENCE
Factory acceptance test	Pass	All acceptance criteria met with recorded results; no punch item affecting a tested characteristic.
Documentation turnover	Accepted	Turnover index signed complete and traceable to the skid serial number.
Shipment release	Released	Release checklist satisfied in full, including preservation and damage-prevention controls.

Release requirements

#	REQUIREMENT	EVIDENCE	VERIFIED
01	FAT completed with a PASS or an approved PASS WITH DEVIATION disposition	Signed FAT record with results against every acceptance criterion	
02	All hold-point nonconformances closed	NCR records showing corrective action, objective evidence and effectiveness verification	
03	All deviations formally approved before release	Approved deviation requests with the technical basis and the approving authority recorded	
04	Punch list dispositioned — closed, or accepted for site closure with an owner and date	Punch list with per-item status and the evidence type defined at logging	
05	Serial numbers recorded and traceable to the record set	Skid and major-component serial numbers on the turnover index	
06	As-built drawings issued at the revision matching the skid	Drawing list with revisions, reconciled against the as-built configuration record	
07	Operation and maintenance documentation complete	O&M manuals and spare parts list received and reviewed	
08	Certificates present and traceable	Material, pressure test and calibration certificates traceable to the skid serial number	
09	Test reports reviewed and accepted	Pressure test, flushing, alignment, electrical, loop check, functional and performance records	
10	Preservation and protection complete for the shipping mode and duration	Preservation record: drained or treated as specified, connections capped, desiccant where required	
11	Damage-prevention controls verified	Packing and bracing inspection, lifting-point marking, shock or tilt indicators where specified	
12	Turnover documentation package accepted	Turnover index signed complete, item by item	

Disposition

ENGINEERING DECISION

Shipment status: ☐ RELEASED ☐ HOLD

Basis: _____

Open punch items accepted for site closure: _____

Approved deviations carried into the site record: _____

A requirement not satisfied is a hold, not a note. The single requirement whose leverage disappears entirely at shipment is the turnover documentation package — it is therefore treated as a hold point in its own right rather than as an administrative follow-up.

Supplier quality — name, signature, date

Owner quality engineering — name, signature,
date

Owner project engineering — name, signature,
date