

CONNECTED-SENSOR MONITORING (IoT)

Monthly cold-chain compliance report · vaccine and temperature-sensitive inventory

SAMPLE REPORT — PLEASE READ. All client names, units, readings and figures in this document are fictitious and shown for illustration only. Delivered client reports are confidential and are never published. The verification code on this sample is deactivated.

Client	Sample Rural Health Clinic (fictitious)	Report period	June 2026
Site	101 Example Way, Anytown, NC	Report ID	MWA-IOT-SAMPLE-0001
Unit monitored	Vaccine Refrigerator 1 · Pharmaceutical-grade, stand-alone	Issued	Jul 1, 9:12 AM ET
Sensor	A84041673462511F	Target range	2–8 °C (36–46 °F)

Executive summary

Vaccine Refrigerator 1 was monitored against a 2–8 °C (36–46 °F) target range for June 2026. Readings were within range for 99.9% of the readings captured. 1 product-affecting temperature excursion was detected and alerted, totalling 34 minutes out of range; its record is set out below. A further 2 out-of-range readings lasted under 60 seconds — shorter than the thermal response time of a buffered probe — and are recorded as transient sensor artifacts rather than product temperature events. All are retained in the register below. Monitoring coverage for the period was 99.6% — 185 minutes unmonitored.

READINGS 2151	IN RANGE 99.9%	COVERAGE 99.6%	EXCURSIONS 1 +2 TR.	TIME OUT OF BAND 34 min
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Compliance snapshot

COMPLIANCE INDICATOR	GUIDELINE REFERENCE	THIS PERIOD	STATUS
Storage range 2–8 °C (36–46 °F) maintained	CDC Vaccine Storage & Handling Toolkit	99.9% of readings in range	1 EVENT
Continuous logging at ≤ 30-minute intervals	CDC Toolkit / VFC programme requirement	20-minute interval · 2151 readings logged	PASS
Monitoring coverage of the reporting period	MW AIRLIFT™ service standard · 95%	99.6% · 185 min unmonitored	PASS
Min/max temperatures documented each day	CDC Toolkit · daily min/max review	31 days recorded · captured automatically	PASS
Measurement at product temperature (buffered probe)	CDC Toolkit · buffered probe required	TI TMP117A external probe in a glass-bead buffer bottle	PASS
Sensor calibration certificate current	Certificate of calibration testing (NIST-traceable)	NIST-traceable cert. SAMPLE-CAL-4471 · expires Mar 31, 2027	VALID
Timestamp integrity (gateway clock)	MW AIRLIFT™ service standard	All timestamps in sequence and within the period	PASS

COMPLIANCE INDICATOR	GUIDELINE REFERENCE	THIS PERIOD	STATUS
Excursion documented with response record	CDC Toolkit excursion response guidance	1 event · recorded below	RECORDED
Alert delivery on excursion	MW AIRLIFT™ service standard	All alerts delivered	PASS

Daily minimum / maximum

The VFC programme requires min/max review each clinic day. This table is the automatic record; it supports, and does not replace, your staff's daily documented check.

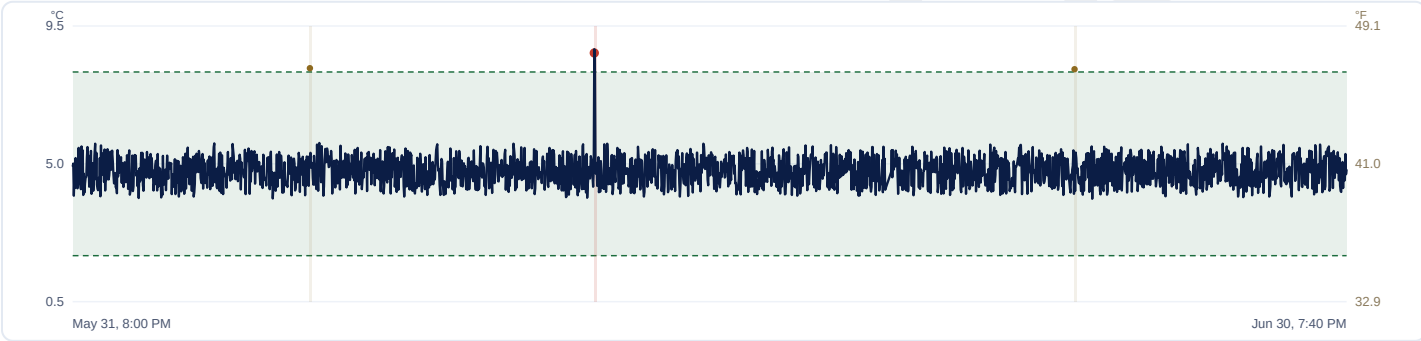
DAY	MIN °C / °F	MAX °C / °F	READINGS	IN RANGE	STATUS
May 31	4.0 / 39.1	5.5 / 41.9	12	100%	IN RANGE
Jun 1	3.9 / 39.1	5.7 / 42.2	72	100%	IN RANGE
Jun 2	3.9 / 39.0	5.4 / 41.8	72	100%	IN RANGE
Jun 3	3.9 / 39.1	5.5 / 42.0	72	100%	IN RANGE
Jun 4	4.0 / 39.2	5.7 / 42.2	72	100%	IN RANGE
Jun 5	3.9 / 39.0	5.4 / 41.8	72	100%	IN RANGE
Jun 6	4.0 / 39.1	5.7 / 42.2	72	100%	IN RANGE
Jun 7	4.0 / 39.3	5.6 / 42.1	72	100%	IN RANGE
Jun 8	3.9 / 39.1	5.5 / 42.0	72	100%	IN RANGE
Jun 9	4.0 / 39.2	5.6 / 42.2	72	100%	IN RANGE
Jun 10	4.0 / 39.2	5.6 / 42.0	72	100%	IN RANGE
Jun 11	4.0 / 39.2	5.7 / 42.2	72	100%	IN RANGE
Jun 12	3.9 / 39.0	5.6 / 42.2	72	100%	IN RANGE
Jun 13	4.0 / 39.2	8.7 / 47.7	72	97.2%	OUT OF RANGE
Jun 14	3.9 / 39.1	5.6 / 42.0	72	100%	IN RANGE
Jun 15	3.9 / 39.1	5.7 / 42.2	72	100%	IN RANGE
Jun 16	4.0 / 39.2	5.5 / 41.9	72	100%	IN RANGE
Jun 17	4.0 / 39.1	5.5 / 42.0	72	100%	IN RANGE
Jun 18	4.0 / 39.3	5.6 / 42.1	72	100%	IN RANGE
Jun 19	4.0 / 39.1	5.6 / 42.0	70	100%	IN RANGE
Jun 20	4.0 / 39.1	5.6 / 42.0	65	100%	IN RANGE
Jun 21	4.0 / 39.2	5.5 / 42.0	72	100%	IN RANGE
Jun 22	4.0 / 39.2	5.6 / 42.1	72	100%	IN RANGE
Jun 23	4.0 / 39.2	5.6 / 42.1	72	100%	IN RANGE
Jun 24	3.9 / 38.9	5.6 / 42.0	72	100%	IN RANGE
Jun 25	4.0 / 39.2	5.6 / 42.0	72	100%	IN RANGE

DAY	MIN °C / °F	MAX °C / °F	READINGS	IN RANGE	STATUS
Jun 26	3.9 / 39.1	5.6 / 42.0	72	100%	IN RANGE
Jun 27	4.0 / 39.2	5.7 / 42.2	72	100%	IN RANGE
Jun 28	3.9 / 39.0	5.6 / 42.0	72	100%	IN RANGE
Jun 29	3.9 / 39.1	5.6 / 42.1	72	100%	IN RANGE
Jun 30	4.0 / 39.2	5.6 / 42.1	60	100%	IN RANGE

Weekly temperature summary

WEEK	MIN °C / °F	MAX °C / °F	AVG °C / °F	IN-RANGE %
Week 1	3.9 / 39.0	5.7 / 42.2	4.8 / 40.6	100%
Week 2	3.9 / 39.0	8.7 / 47.7	4.7 / 40.5	99.6%
Week 3	3.9 / 39.1	5.7 / 42.2	4.8 / 40.6	100%
Week 4	3.9 / 38.9	5.7 / 42.2	4.8 / 40.6	100%

Temperature trace



Green band = the 2–8 °C (36–46 °F) target range. Red shading marks a product-affecting excursion; amber marks a transient reading below the probe response time. 2151 plotted readings. Left axis °C, right axis °F.

Temperature excursion register

#	CLASS	DETECTED	RESOLVED	DURATION	PEAK °C / °F	ALERT	LATENCY
1	WARM	Jun 13, 2:40 AM	Jun 13, 3:14 AM	34 min	8.62 / 47.52	Delivered	84 ms
2	TRANSIENT	Jun 6, 10:00 AM	Jun 6, 10:00 AM	20 s	8.12 / 46.62	Delivered	96 ms
3	TRANSIENT	Jun 24, 10:00 AM	Jun 24, 10:00 AM	7 s	8.09 / 46.56	Delivered	96 ms

Every out-of-range reading is listed. An event shorter than 60 seconds is classed **TRANSIENT**: a buffered probe's thermal response is measured in tens of minutes, so a swing that brief cannot represent a change in product temperature. Transient events are retained and reported, but are not counted as product-affecting.

Excursion response records

Excursion 1 · above range · Jun 13, 2:40 AM · duration 34 min · peak 8.62 °C / 47.52 °F	
Detected and alerted	Jun 13, 2:40 AM · alert dispatched in 84 ms
Alert recipients	vaccine.coordinator@example.org, backup.coordinator@example.org
Acknowledged by	TO BE COMPLETED by the facility — delivery is not receipt
Root cause	TO BE COMPLETED by the facility
Corrective action	TO BE COMPLETED by the facility
Viability determination	Rests with the vaccine manufacturer and the state immunization programme. MW AIRLIFT™ does not make this determination, and records only the measured conditions above.

Device, probe and calibration

Sensor / DevEUI	A84041673462511F
Probe	TI TMP117A external probe in a glass-bead buffer bottle
Calibration certificate	NIST-traceable cert. SAMPLE-CAL-4471 · expires Mar 31, 2027
Reporting interval	20 minutes (3.0 readings per hour)
Sensor battery	3.061 V
Monitoring coverage	99.6% · 1 gap — longest 0 min
Time zone	America/New_York (ET) · gateway clock NTP-synced

ACCURACY & INTENDED USE

This report is a **supplementary continuous-monitoring record** of the temperatures measured by the sensor identified above, across the period stated. It is provided for temperature documentation, excursion review, and decision support. **It is not a substitute for your facility's certified, calibrated digital data logger**, which remains your primary record for VFC and state immunization programme purposes, and it does not replace your staff's required daily documented temperature check. It records measured conditions only: it does not determine vaccine viability, potency, or fitness for use, does not establish the cause of any excursion, and does not assess the storage unit, its contents, or your handling practices. **Final viability determinations rest with the vaccine manufacturer and your state immunization programme.** MW AIRLIFT™ is an independent monitoring service provider; no endorsement by CDC or the Vaccines for Children programme is implied or given.

Data integrity and verification

Record handling	Every reading is exported unaltered from the MW AIRLIFT™ monitoring platform with its original timestamp. Readings are never edited, interpolated or removed — a gap is reported as a gap.
Integrity chain	Continuous-integrity chain not available for this period — this report is verified by its sealed manifest only.
Underlying data	The full interval dataset for this period is available on request for audits and site visits, and is sealed alongside this report.
Retention	Readings, excursion records and issued reports are retained for 3 years , meeting the retention period required by state immunization programmes.



VERIFIED CHAIN OF CUSTODY

This report and the interval dataset behind it were fingerprinted (SHA-256) and sealed into a signed, published manifest. Scan the code, or go to mwairlift.com/verify and enter report **MWA-IOT-SAMPLE-0001**, then drop in the file you received. Your file is checked in your own browser and is never uploaded. A re-saved, re-exported or re-compressed copy will not match — verify the exact file we delivered.

The verification code on this sample is deactivated.

Issued by Warren Gonsalves · Founder & CEO, MW AIRLIFT™ · July 1, 2026

Monitoring service record. The issuer attests that the readings reproduced here are the readings the platform recorded, unaltered. The issuer makes no clinical or pharmaceutical determination.

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