

01 / DECISION SUMMARY

Electrical thermography

A finding. A clear action. A verifiable result.

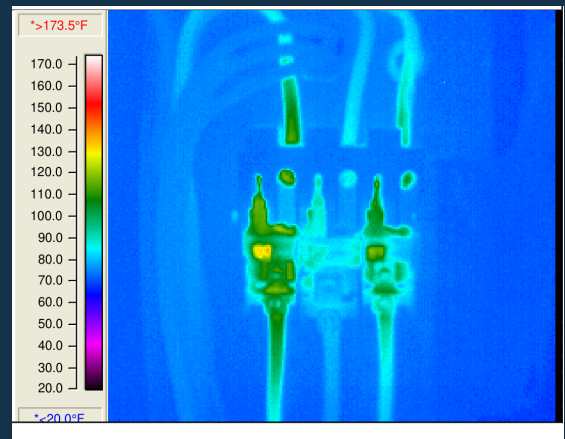
DEMONSTRATION FACILITY / CHICAGO AREA / ISSUED 16 SEP 2026

E-001 / DISCONNECT HEATING

25.6°C

above the reported reference

The source finding warrants evaluation of the contact assembly and connections.



Historical thermal image and temperatures [S1]. The facility, asset labels, route and financial scenarios in this report are illustrative.

01

documented issue

One historical finding anchors the demonstration.

12

example assets

10 examined; 1 limited; 1 deferred.
Fictional inventory.

\$2,055

modeled planned cost

Rounded budget; assumptions and published price on page 4.

The next decision

Authorize qualified electrical evaluation. Confirm operating load and component condition, select the appropriate correction, and verify the result under comparable conditions.

1 Assign

Name the facility owner.

2 Coordinate

Plan access and an outage.

3 Verify

Document the condition after repair.

Independent inspection. No repair sales.

02 / FINDING DETAIL

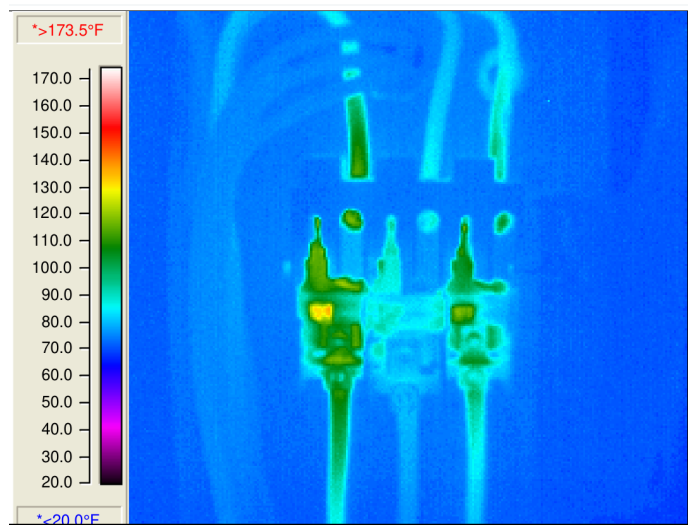
E-001 / Disconnect heating

DS-01 / Process-area supply fan / Fan room

PROMPT QUALIFIED EVALUATION

Example action priority; not a standards severity category.

THERMAL EVIDENCE



VISIBLE EQUIPMENT



Historical source images [S1]. Original thermal display is °F; summary below uses the source-reported °C values. The source PDF clips the lower scale label. No radiometric reanalysis.

57.8°C

Object apparent

32.2°C

Reference apparent

+25.6°C

Difference

20.0°C

Ambient reported

What the evidence means

The source report identifies heating at disconnect contacts, connections or pivots. Increased contact resistance is a possible cause. The actual defect and exact comparison-point equivalence require confirmation.

What happens next

Qualified electrical personnel evaluate the assembly and operating conditions, correct confirmed defects using manufacturer guidance, then document a thermal follow-up. An image alone cannot set a safe repair deadline.

03 / SCOPE AND COVERAGE

Every asset has a status.

Illustrative route: accessible electrical distribution, disconnects and critical feeders in one light-industrial facility. All inventory records below are fictional.

10

EXAMINED

01

LIMITED

01

DEFERRED

ASSET	DESCRIPTION	STATUS	RESULT / LIMITATION
MDP-01	Main distribution board	Examined	No exception recorded
PP-01	General power panel	Examined	No exception recorded
LP-01	Office lighting panel	Examined	No exception recorded
LP-02	Warehouse lighting panel	Examined	No exception recorded
LP-03	Exterior lighting panel	Examined	No exception recorded
DS-01	Process-area supply fan	Examined	E-001 / evaluate heating
DS-02	Exhaust fan disconnect	Examined	No exception recorded
DS-03	Air-handler disconnect	Examined	No exception recorded
TX-01	Transformer terminations	Examined	No exception recorded
UPS-01	UPS input / bypass	Examined	No exception recorded
MCC-01	Motor control center	Limited	Rear connections inaccessible
ATS-01	Transfer switch	Deferred	No representative load available

Two follow-ups remain in the example route.

Coordinate access to MCC-01 and a representative operating condition for ATS-01. "Examined" means the agreed accessible areas were observed; it is not a safety or compliance clearance.

04 / PLANNED REPAIR BUDGET

The repair budget, line by line.

Cost case: assume qualified diagnosis confirms damage requiring replacement of a small enclosed disconnect. This is an illustrative scope, not a diagnosis of the source equipment.

\$2,055

MODELED TOTAL, ROUNDED

Published hardware anchor: \$204.99

New Siemens HNF362 listing [S2], accessed 16 September 2026. Used only as a pricing benchmark; no compatibility with the photographed assembly is asserted.

COST ELEMENT	BASIS	USD
Equipment benchmark	1 × \$204.99 [S2]	\$204.99
Electrical labor	2 people × 3 h × \$175/h*	\$1,050.00
Mobilization / coordination	Scenario allowance*	\$125.00
Incidental materials	Scenario allowance*	\$75.00
Tax / freight contingency	Allowance; not a tax calculation*	\$100.00
Initial survey allocation	Share assigned to this example*	\$250.00
Thermal verification	Follow-up allowance*	\$250.00
Total modeled planned cost	Includes survey and follow-up	\$2,054.99

Scope assumes accessible, like-for-like work. Feeder/conduit changes, permits, engineering, special utility coordination and major equipment damage require separate pricing.

*Scenario inputs, not contractor quotes or IID pricing. Labor includes diagnosis, safe isolation, correction and return-to-service checks within the assumed scope. Crew, duration and rate must be quoted for the actual job.

What supports the labor assumption?

DuPage published base wage plus listed regular fringe components total \$107.74/h [S3]. That is a wage/benefit benchmark, not a customer billing rate. The \$175/h model rate is an explicit assumption, including ordinary contractor overhead and margin.

05 / BUSINESS IMPACT

The interruption can cost more than the component.

Illustrative event: loss of process-area ventilation interrupts operations. Compare a planned three-hour off-shift correction with one unplanned event. Failure probability is not estimated.

PLANNED INTERVENTION	ONE UNPLANNED EVENT
\$2,055	\$9,230
Rounded. Full model below; not an actual loss or saving.	

UNPLANNED EVENT ELEMENT	ASSUMPTION	USD
Replacement equipment / materials / tax-freight	\$204.99 + \$75 + \$100	\$379.99
Emergency labor	2 people × 4 h × \$250/h	\$2,000.00
Emergency dispatch / coordination	Scenario allowance	\$350.00
Verification and incremental restart	\$250 + \$250	\$500.00
Business interruption	6 hours × \$1,000/hour	\$6,000.00
Total modeled event cost	No initial survey allocation	\$9,229.99

\$7,175

Conditional difference between these two scenarios.
Not verified savings, expected annual savings or a prediction of failure.

How sensitive is the result?

2 h × \$500/h	6 h × \$1,000/h	8 h × \$1,500/h
\$4,230 event	\$9,230 event	\$15,230 event
\$2,175 difference	\$7,175 difference	\$13,175 difference

Only interruption hours and hourly loss change above; other event costs stay fixed. Hourly loss means unrecoverable contribution or incremental cost, excluding items already listed. Planned off-shift interruption is assumed to create no such loss.

06 / ACTION AND VERIFICATION

A finding becomes a work order.

Example handoff for E-001. Role assignments and target events show the workflow; no contractor appointment, notification or repair is represented as completed.

01

ASSESS

Facility lead + qualified electrician

Review the thermal finding, load, equipment ratings and service criticality. Decide the operating disposition and urgency before selecting an outage.

02

CORRECT

Client-selected electrical contractor

Establish an electrically safe work condition. Inspect the contact assembly and connections; correct the confirmed cause under manufacturer instructions.

03

VERIFY

Thermographer + facility representative

Repeat the same asset and target under sufficiently comparable operating conditions. Record load, settings, visible evidence and remaining limitations.

EXAMPLE CLOSEOUT RECORD

Finding / asset / work order	E-001 / DS-01 / DEMO-WO-001
Current demonstration status	Evaluation pending; verification not performed
Required repair evidence	Cause found, corrective work, date and contractor record
Required verification evidence	Image IDs, temperatures, load, conditions and reviewer
Closure decision	Verified / revisit required / asset removed from service

A paid invoice establishes repair expenditure. Thermal closure needs comparable evidence and a reviewed conclusion; a cooler image at lower load does not, by itself, establish correction.

Traceable from image to decision.

This sample combines an attributed historical issue with a fictional operating scenario. It demonstrates report structure and decision support, not an IID inspection, customer result or compliance certification.

RECORD	AVAILABLE IN THIS CASE	REQUIRED IN A LIVE IID REPORT
Thermal evidence	Source PDF, 25 Jun 2026; reported temperatures [S1]	Original IR / visible files; nameplate data; asset and measurement-point IDs
Operating context	Historical load and reference equivalence not supplied	Currents / load basis, time, environment and reference rationale
Radiometry / equipment	Source camera, calibration, emissivity and reflected settings not supplied	Camera / lens / serial; calibration evidence; settings and surface basis
Interpretation	Contact resistance suspected; root cause unconfirmed	Evidence-based priority, limits, owner, actions and verification

Live workflow: retain original files; analyze in FLIR Thermal Studio; review and issue an authorized IID report. Record inspection date, thermographer, reviewer and verified credentials. Studio uses image copies; retain reviewed analysis with the originals [S6].

Sources and assumptions

- S1 Historical evidence.** Infrared Inspections Inc., 25 Jun 2026, p. 2 of owner-supplied Infrared Inspections Results 06-25-2026.pdf. Not an IID inspection; no provider endorsement implied.
- S2 Equipment price.** SimplyBreakers, HNF362 new variant, \$204.99; checked 16 Sep 2026. Listing only; verify specifications, availability and actual replacement scope.
- S3 Labor benchmark.** IDOL DuPage, 15 Sep 2026: \$52.49 base + \$17.10 health + \$28.85 pension + \$8.00 vacation + \$1.30 training = \$107.74/h. Not a billing rate.
- S4 Measurement limits.** FLIR emissivity guidance: surface properties and reflected radiation affect apparent temperatures. Unknown settings are not filled with assumed values.
- S5 Maintenance records.** ITC documentation guidance (2023). Live criteria and maintenance intervals follow the applicable program and reviewed requirements; no blanket interval is asserted.
- S6 Analysis records.** FLIR Thermal Studio 2.0, Reporting. Keep original camera files and reviewed .atr analysis. No image-derived energy or guaranteed cost-saving claim is made.