Opsrelia EAM

PRODUCT INTRODUCTION

One connected record for assets, work, safety and people

Opsrelia EAM for manufacturing, process industry, energy and ports: every inspection, work order, permit, certificate, part and figure linked across all sites of a group.

Maintenance and assets | Permits and isolation | Training and competence | Access control | Stores and purchasing | Reports for every site

November 2026 · opsrelia.com

All companies, people and places in the sample data are fictitious.

CONTENTS

What this document covers

01 **Why Opsrelia** 3
- Summary 4
- The problem: the links are missing 5
- One idea: every record tied to the records it depends on 6
- One day across the group 7

02 **Maintenance and assets** 8
- Assets and work management 9
- Planning and scheduling 10
- Preventive maintenance and reliability 11
- Inventory and stores 12
- Counts and replenishment 13
- Purchasing, approvals and quality 14

03 **Health, safety and environment** 15
- Permits to work 16
- Isolation (LOTO) 17
- Incidents, investigation and corrective action 18
- Management of change 19
- Compliance, environment and standards 20

04 **People: training, competence and access** 21
- Training classes 22
- Attendance by badge, gaps and reminders 23
- Contractor workers and the permit check 24
- Access control: roles, groups and effective rights 25
- Segregation of duties and approval limits 26
- Access reviews and responsibility 27

05 **Operations and insight** 28
- Mobile and QR codes 29
- Equipment dispatch and operations systems 30
- Shift roster, operations and notices 31
- Reports centre and group view 32
- Low-code: adapt it without programming 33

06 **Trust, editions and next step** 34
- Business continuity 35
- Deployment and trust 36
- Editions: HSSE, CMMS and EAM 37
- Next step: a pilot at one site 38

About this document

Opsrelia EAM is developed by Công ty TNHH Công nghệ số Nghi Sơn; the product has been in development since 2021. Every screenshot is taken from the product with its English interface. The companies, people and places in the sample data — the Thalvora group and its sites — are invented; equipment manufacturers are real brands. This brochure describes what the product does today.

01

Why Opsrelia

The facts about one machine are spread over tools that do not know about each other. Opsrelia ties them together, and checks the links before work starts.

Summary 4

The problem: the links are missing 5

One idea: every record tied to the records it depends on 6

One day across the group 7

SUMMARY

One installation for every site of a group

Opsrelia EAM brings maintenance, safety, people and materials onto one record. Thalvora Industrial Group (fictitious) runs a gas-processing plant, two thermal power plants, a hydropower plant, a repair-services company and an international seaport — all of them in one Opsrelia installation at head office.

Manufacturing and process industry

Production lines and process units, rotating equipment and utilities; hot-work and confined-space permits with gas tests; management of change with pre-start-up review; quality and non-conformance; an equipment board that follows the production runs.

Energy

Generating units with states per IEEE 762 and availability factors; outages and overhauls; shift logbook, handover and operator rounds; emissions from fuel and purchased electricity.

Ports and terminals

Cranes and yard equipment with meters in hours and moves; an equipment board that follows the vessel calls; breakdowns reported from the cab; PM in the gaps between calls; lifting gear and structures inspected.

What you get

- **Checked before work starts.** No start without the permit, the isolation, a valid inspection certificate and qualified people — the plant chooses whether a gap warns or blocks.
- **Figures you can open.** Every indicator is computed from the records, carries its definition and opens on the records behind it.
- **No typing on the plant floor.** A scan identifies the equipment, the permit, the lock or the person; one tap turns it into work.
- **Adapted without programming.** Key users change approvals, fields, dashboards and alerts — with a second person and a test run first.
- **Keeps going.** Phones keep scanning without a network, and a standby server can take over from the main one.

New in this edition of the brochure

- **Training and competence** — in-house classes for employees and contractor workers, attendance by badge, results that become certificates checked at the permit.
- **Access control** — security groups, segregation of duties, approval limits, periodic access reviews.
- **Business continuity** — offline scanning and a standby server.
- **Three editions** — HSSE, CMMS and EAM.

THE PROBLEM

The links are missing

In most plants the facts about one machine live in tools that do not know about each other. Each tool may be right on its own; together they cannot answer the question of the day.

Separate tools, separate truths

- Work orders in one system, permits on paper, isolation records in a binder, spare parts in a spreadsheet, purchases in the ERP.
- Training records in a folder at the HSE office, contractor certificates in e-mails.
- None of them answers: can this job start safely, now, with the parts and the qualified people it needs?
- Figures reach management without the records behind them, so every review starts with an argument about the numbers.

What a missing link costs

- A job starts while its permit is suspended.
- A contractor welder signs on whose hot-work course lapsed last month.
- A machine waits for a part nobody ordered.
- An expired inspection certificate is found at the audit, not before the lift.
- The same failure returns because nobody checked that the corrective action worked.
- Someone who raised a purchase also approved it, and nobody noticed.
- Cost per asset is guessed, so repair-or-replace is decided on opinion.

Who works in Opsrelia

Technicians and operators
Scan, see what is safe, start and close work; rounds and readings.

Planners and supervisors
Backlog, crews, schedules, materials, the shift roster.

HSE and contractors
Permits, isolation, incidents, training, contractor workers.

Managers
Approvals, indicators, every site side by side.

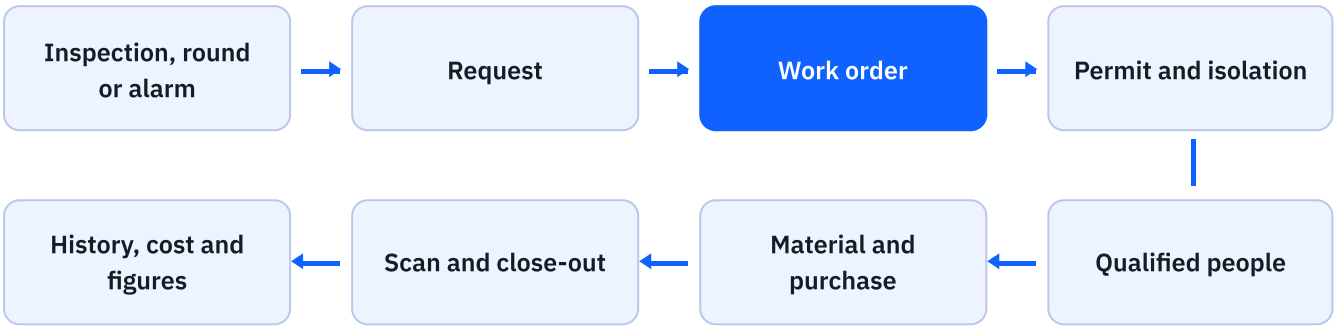
THE AIM

Answer “may this job start, here, now, with these people?” from the records themselves — and keep every figure traceable to the records it was computed from.

THE IDEA

Every record tied to the records it depends on

A work order knows its asset, request, permits, isolation, parts, people, labour and cost — and the system checks those links before work starts.



Read the second row from right to left.

Checked before work starts

The permit, the isolation, a valid statutory certificate and each person's training are checked where work is planned and again where it starts. The plant decides whether a gap warns or blocks.

Figures you can open

Each indicator is recomputed from the records, carries its definition and opens on the records behind it. Missing data is said, never guessed.

No orphan records

Stock moves only with a document; a training record comes from a class result or a named entry; a corrective action closes only when its effect is verified.

Two people where it matters

Nobody approves their own purchase, permit or change. Asset criticality, custom fields, automation rules and approval flows go live only after a second person has reviewed them. Every create, change, approval and close-out is recorded with who and when.

One installation, many sites

All sites work in one installation at head office. Each person sees what their role allows at each site; group management sees every site side by side, each figure with what it is made of.

ONE DAY ACROSS THE GROUP

From the morning handover to the night shift

One day at the sites of the Thalvora group (fictitious). Each step is a screen of the product; most of them appear later in this brochure.

06:00	POWER PLANT	**The shift hands over — on the record** Equipment out of service, permits and isolations in force; two signatures, and the person handing over cannot accept their own handover.
07:10	POWER PLANT	**An operator round finds a reading out of limits** The alarm raises a maintenance request on the right asset, with the reading attached.
08:00	POWER PLANT	**The technician scans the pump — no typing** The phone shows the permits on the asset first, then the open work and overdue PM. One tap opens the job.
08:30	POWER PLANT	**The crew signs on to the hot-work permit with badges** Each person's training and certificates are checked; a contractor worker whose course has lapsed is flagged or stopped, as the plant has chosen.
09:15	POWER PLANT	**Isolation everyone can see** The QR code at the machine shows “Isolated — do not operate”, the isolation points, locks and tags.
10:00	TRAINING ROOM	**A refresher class takes attendance by badge** One scan per person marks them present. At the end, each person who passed receives a training record with its expiry date.
11:30	HEAD OFFICE	**A purchase follows the company's approval rules** The flow and each person's approval limit decide who is asked; nobody approves their own request.
14:00	SEAPORT	**The equipment board follows the vessel calls** Which crane is working, on standby, broken down, under maintenance or locked for safety — also on the control-room TV.
14:20	SEAPORT	**A breakdown reported from the cab in one tap** An emergency work order is raised, the supervisor and maintenance are told, and the board proposes a standby machine.
16:00	STORES	**A wrong delivery becomes a non-conformance** Linked to the order, the vendor and, if needed, a corrective action.
17:30	GROUP	**Management sees every site side by side** Each indicator recomputed from its records and open down to them.
18:00	SEAPORT	**The night shift takes over — notices follow the roster** Breakdowns and escalations now reach the people on duty, not everyone with the role.

02

Maintenance and assets

Requests triaged, work planned against crew capacity, carried out safely and closed with labour, material and cost — organised the way large EAM systems do it, and readable on the plant floor.

Assets and work management	9
Planning and scheduling	10
Preventive maintenance and reliability	11
Inventory and stores	12
Counts and replenishment	13
Purchasing, approvals and quality	14

ASSETS AND WORK MANAGEMENT

Every job on the right equipment, from request to close-out

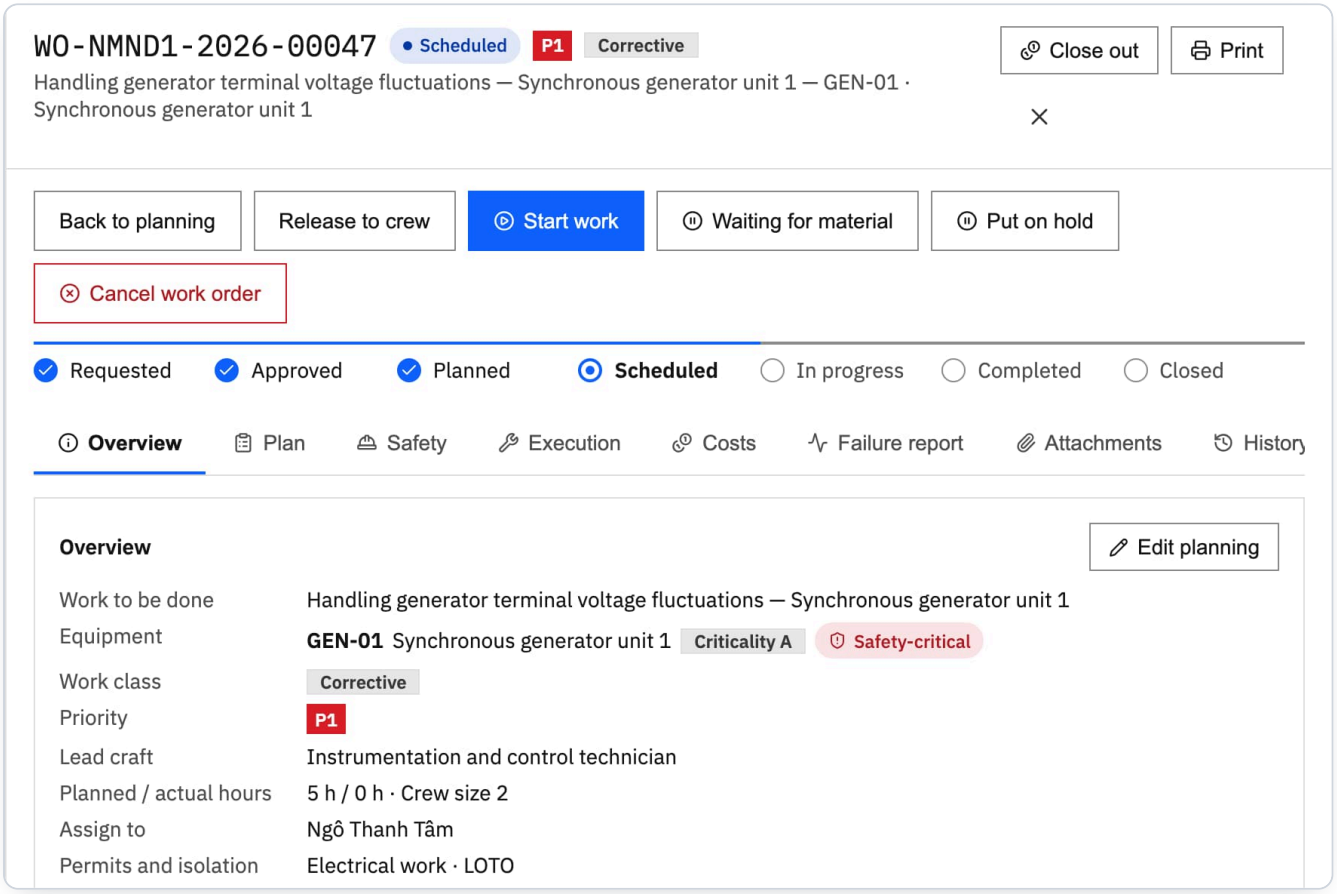
One register of what each site owns and where it is installed, so every work order, permit, reading and cost lands on the right equipment.

Assets and locations

- Functional locations kept apart from serialised equipment, with the history of what was installed where
- Asset classes and failure codes following ISO 14224
- Criticality assessed and approved by a second person; safety-critical equipment marked
- Several meters per asset (hours, cycles, moves), warranty records

Work orders

- Request → approval → planning → scheduling → execution → close-out, with the full status history
- Job steps by craft, crew size and hours; a readiness checklist
- Work-start gate: permit, isolation, statutory certificate and qualification checked
- An owner and an owner group answer for each work order NEW



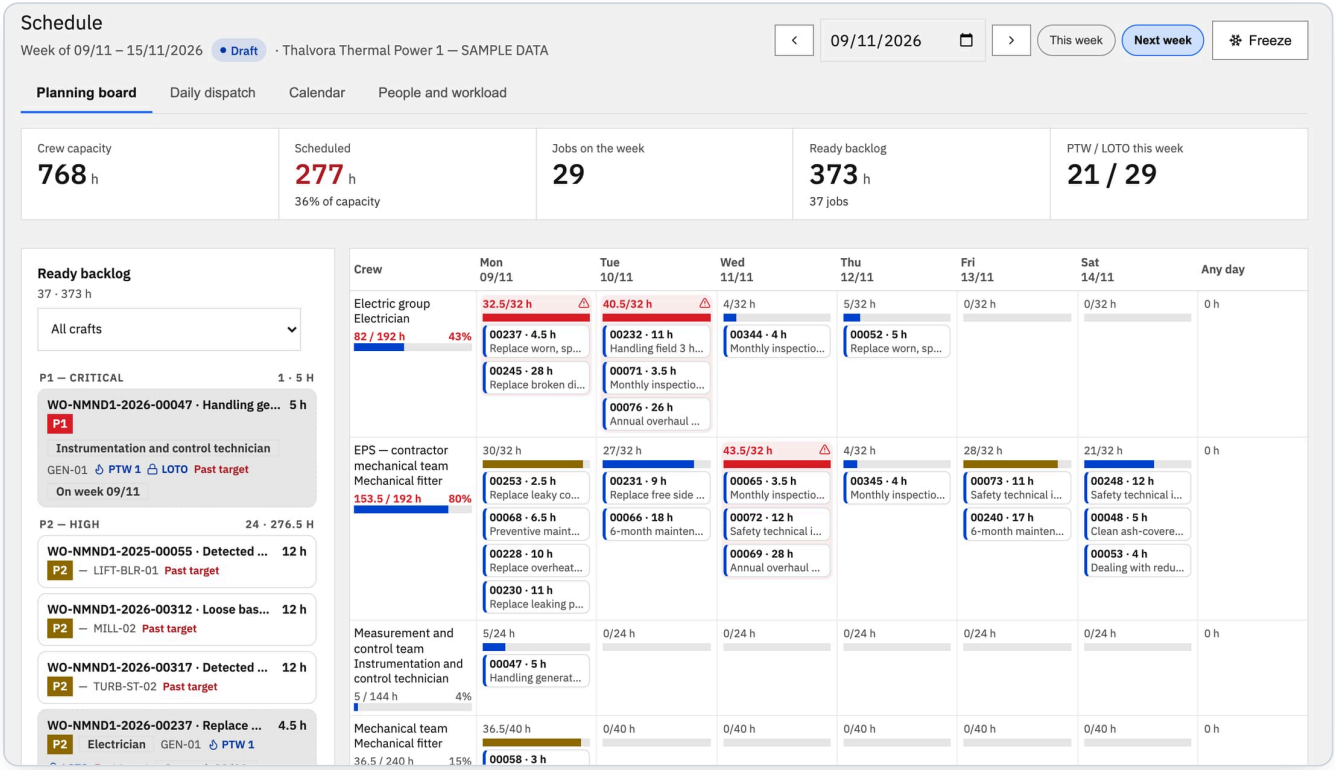
A corrective work order on a safety-critical generator: life cycle, criticality, lead craft, crew and the permits it needs.

PLANNING AND SCHEDULING

The week’s work against the crews that will do it

Planners see the ready backlog, each crew's hours per day and which jobs need a permit or an isolation — before the week starts, not on the morning of the job.

- Weekly planning board: ready backlog by priority, crew capacity per day, overload shown at once
- Permit and isolation needs counted for the week
- Shift roster and absences taken into account
- Daily dispatch, a calendar and each person's workload
- The schedule is frozen once agreed, so schedule compliance is measured against what was promised
- Material shortages put a job on hold and release it when stock arrives



Planning board of the sample power plant: the ready backlog on the left, crews and days on the right.

PREVENTIVE MAINTENANCE AND RELIABILITY

Planned work instead of firefighting

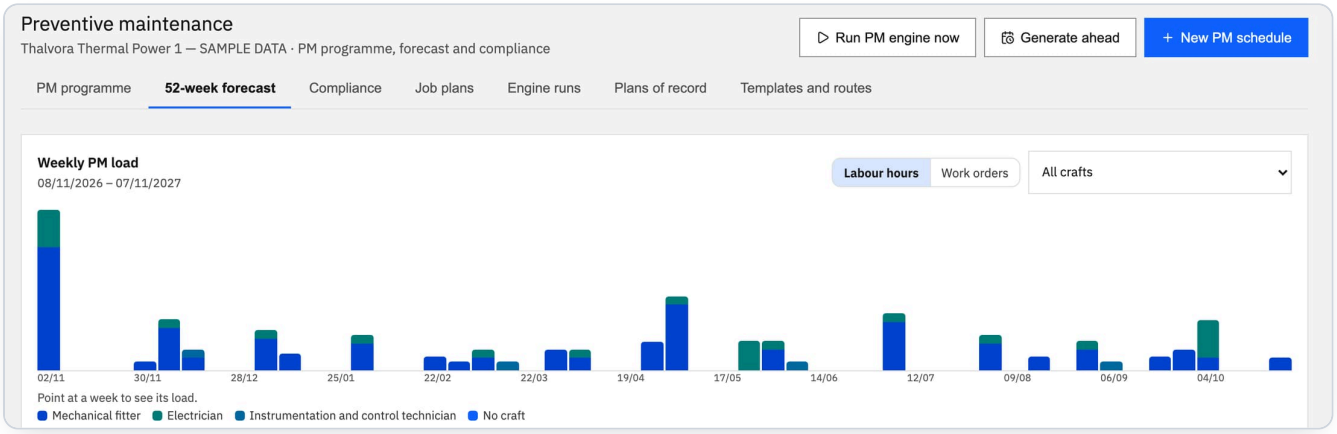
Preventive maintenance by calendar or by meter, forecast a year ahead by craft — and reliability measured from what really happened on the equipment.

Preventive maintenance

- PM by calendar or by several meters, on equipment, locations or routes
- Job plans, sequences and seasons; generate ahead for an outage
- Approved deferrals and off-cycle work
- 52-week forecast of labour by craft, statutory inspections included
- Compliance counted per occurrence, against a frozen plan

Reliability and failure analysis

- MTBF, MTTR, availability, planned versus emergency work — each with numerator, denominator and definition
- Failure reports coded to ISO 14224 (mode, mechanism, cause, detection)
- Bad actors and repeat failures; root cause analysis
- Cost per asset, and against replacement value



52-week PM forecast: the weekly load in labour hours, by craft.

Outages and overhauls

An outage is planned as a whole: its scope brought in from the backlog of work waiting for a shutdown, then frozen, so anything added later counts as scope growth. Schedule, readiness and isolations are followed in one place, with the critical path marked; PM due during the outage is generated ahead.

Rounds and readings

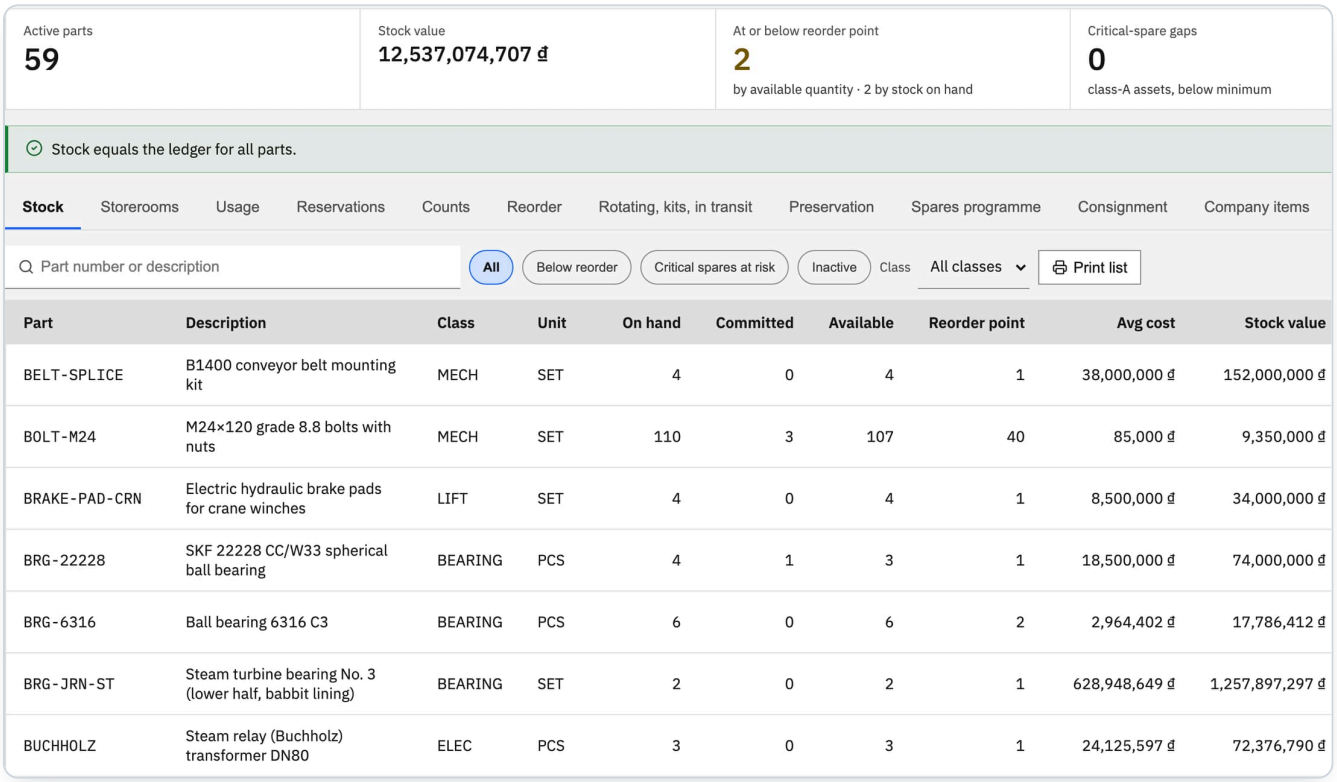
Operator rounds with warning and alarm limits at each point; a reading in alarm raises a maintenance request on the right asset, with the reading attached. Meter readings drive the meter-based PM.

INVENTORY AND STORES

The right part, in the right store, reserved for the right job

One record for every stock move, so the stock on the shelf always equals the ledger — and the screen says so.

- Several storerooms with bins, lots and expiry dates
- Condition codes; rotating spares tracked by serial number, including repairs at vendors
- Approving a work order reserves its material; a shortage puts the job on hold and releases it when stock arrives
- Critical spares linked to the equipment they protect
- Transfers between plants and stock in transit
- Consignment stock and kits
- A company item master shared across plants
- Preservation maintenance of stored spares, as work orders



Part	Description	Class	Unit	On hand	Committed	Available	Reorder point	Avg cost	Stock value
BELT-SPLICE	B1400 conveyor belt mounting kit	MECH	SET	4	0	4	1	38,000,000 ₫	152,000,000 ₫
BOLT-M24	M24×120 grade 8.8 bolts with nuts	MECH	SET	110	3	107	40	85,000 ₫	9,350,000 ₫
BRAKE-PAD-CRN	Electric hydraulic brake pads for crane winches	LIFT	SET	4	0	4	1	8,500,000 ₫	34,000,000 ₫
BRG-22228	SKF 22228 CC/W33 spherical ball bearing	BEARING	PCS	4	1	3	1	18,500,000 ₫	74,000,000 ₫
BRG-6316	Ball bearing 6316 C3	BEARING	PCS	6	0	6	2	2,964,402 ₫	17,786,412 ₫
BRG-JRN-ST	Steam turbine bearing No. 3 (lower half, babbit lining)	BEARING	SET	2	0	2	1	628,948,649 ₫	1,257,897,297 ₫
BUCHHOLZ	Steam relay (Buchholz) transformer DN80	ELEC	PCS	3	0	3	1	24,125,597 ₫	72,376,790 ₫

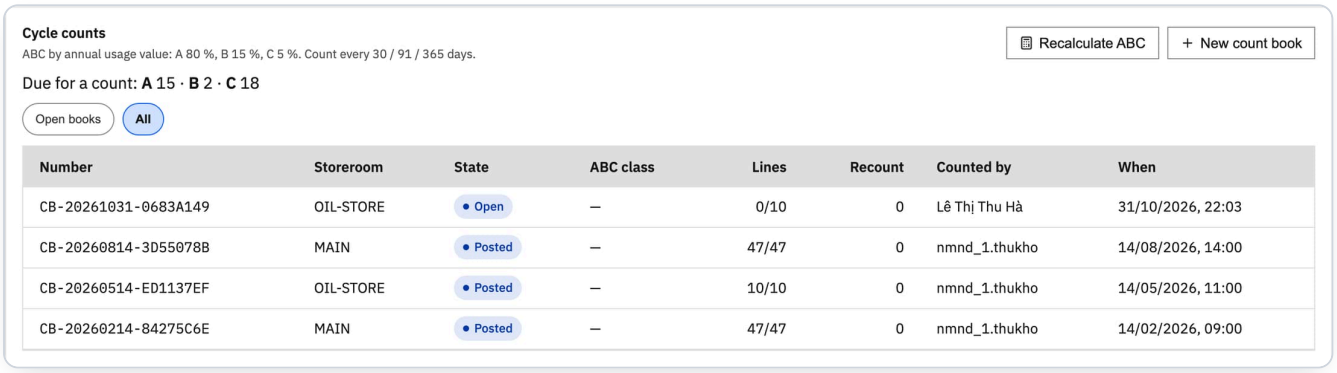
- Store stock with reorder points, critical spares, stock value and the stock-equals-ledger check.

COUNTS AND REPLENISHMENT

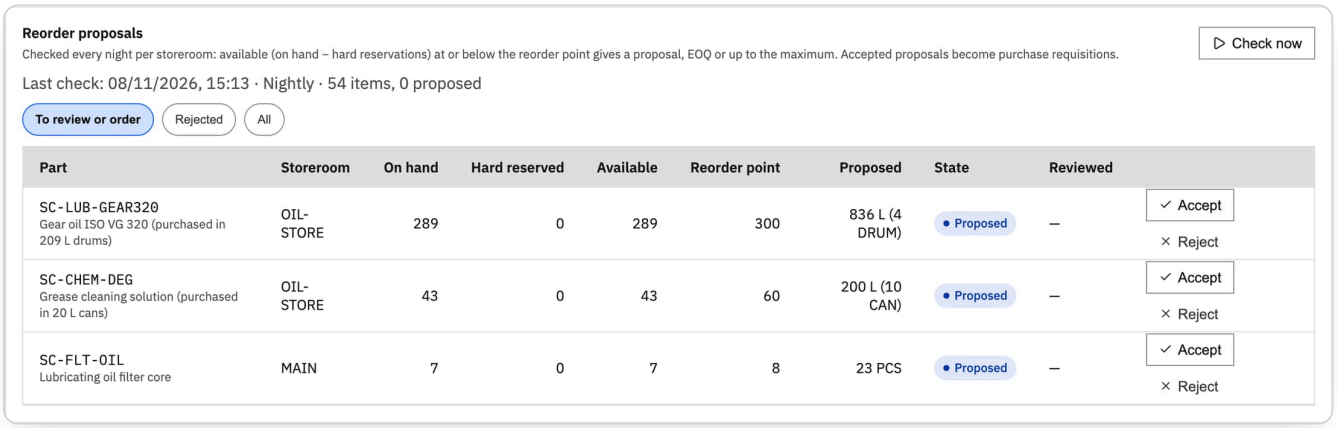
Stock that is counted, and reordered before it runs out

Cycle counts follow the value of each part; reorder proposals are prepared every night for a person to accept.

- ABC classes by annual usage value, with a count cycle per class
- Count books for the storekeeper; a recount when the difference exceeds the tolerance
- The storekeeper's phone: counts by bin, moves between bins, put-away
- Nightly reorder proposals; accepted proposals become purchase requisitions
- Suggested reorder points, safety stock and min/max for a planner to accept
- Lots past their expiry date moved to quarantine



Cycle counts: ABC classes, count cycles and the count books of each storeroom.



Reorder proposals checked every night per storeroom, waiting to be accepted or rejected.

Receiving

Goods are received against the purchase order, on the scanner or at the desk. A delivery can be inspected in parts: accept and reject what has been checked, the rest waits in quarantine. Each rejection opens its own non-conformance report.

PURCHASING, APPROVALS AND QUALITY

Bought through the company's own rules

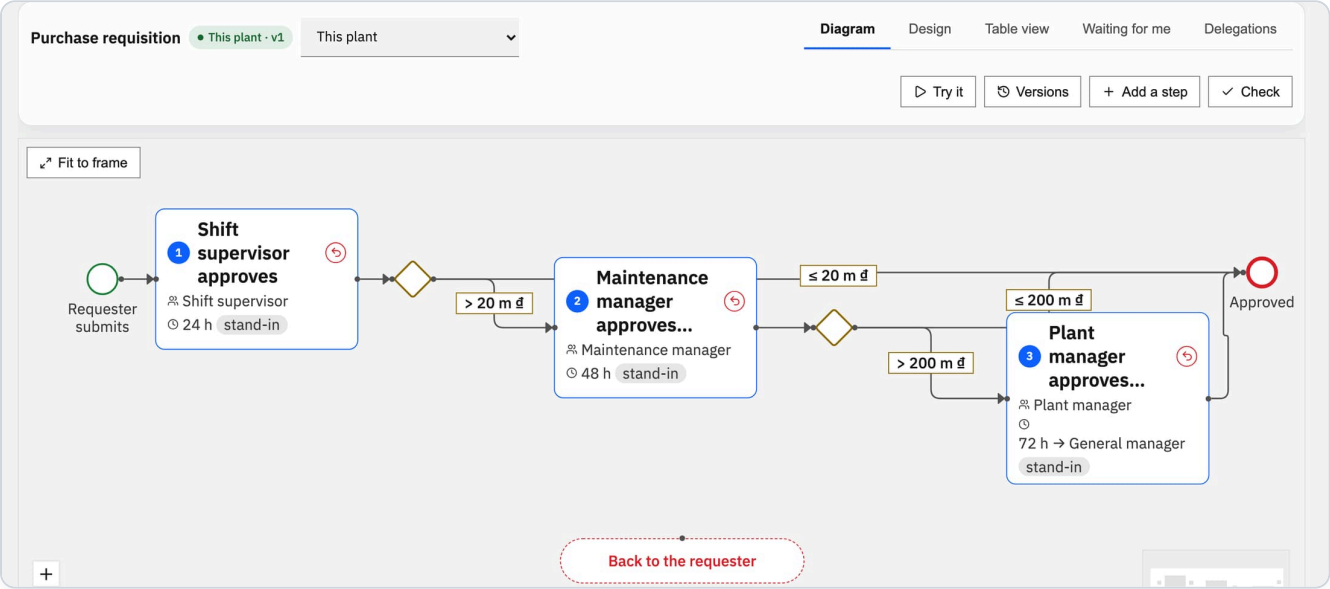
Every purchase follows an approval that matches its amount, is never approved by the person who raised it, and is measured on real deliveries.

Purchasing and contracts

- Requisition → quotation → purchase order → receipt with inspection, rejection and return
- Contracts and price agreements with blanket releases; partial inspection; over-receipt tolerance
- Vendors rated from their deliveries against purchase orders

Approval rules you draw

- Each approval drawn as a flow: who approves, under which amount, time allowed, stand-ins, escalation
- "Try it" shows the path a sample document takes and who will be asked
- Safety steps are locked; nobody approves their own document or two steps of one document



Purchase-requisition flow: amount conditions, roles, time allowed and stand-ins.

Lead times on the record

Lead times observed on real receipts are proposed to the buyer, who accepts them for planning and reordering.

Quality and non-conformance

Non-conformance reports from receiving, work or process, linked to the equipment, order, receipt, vendor and corrective action; disposition and closure with verification. A rejected receipt raises its report at once.

03

Health, safety and environment

Safety that is part of the work: the permit, the isolation and the people are checked where the work is planned and where it starts — and every event is followed to a verified fix.

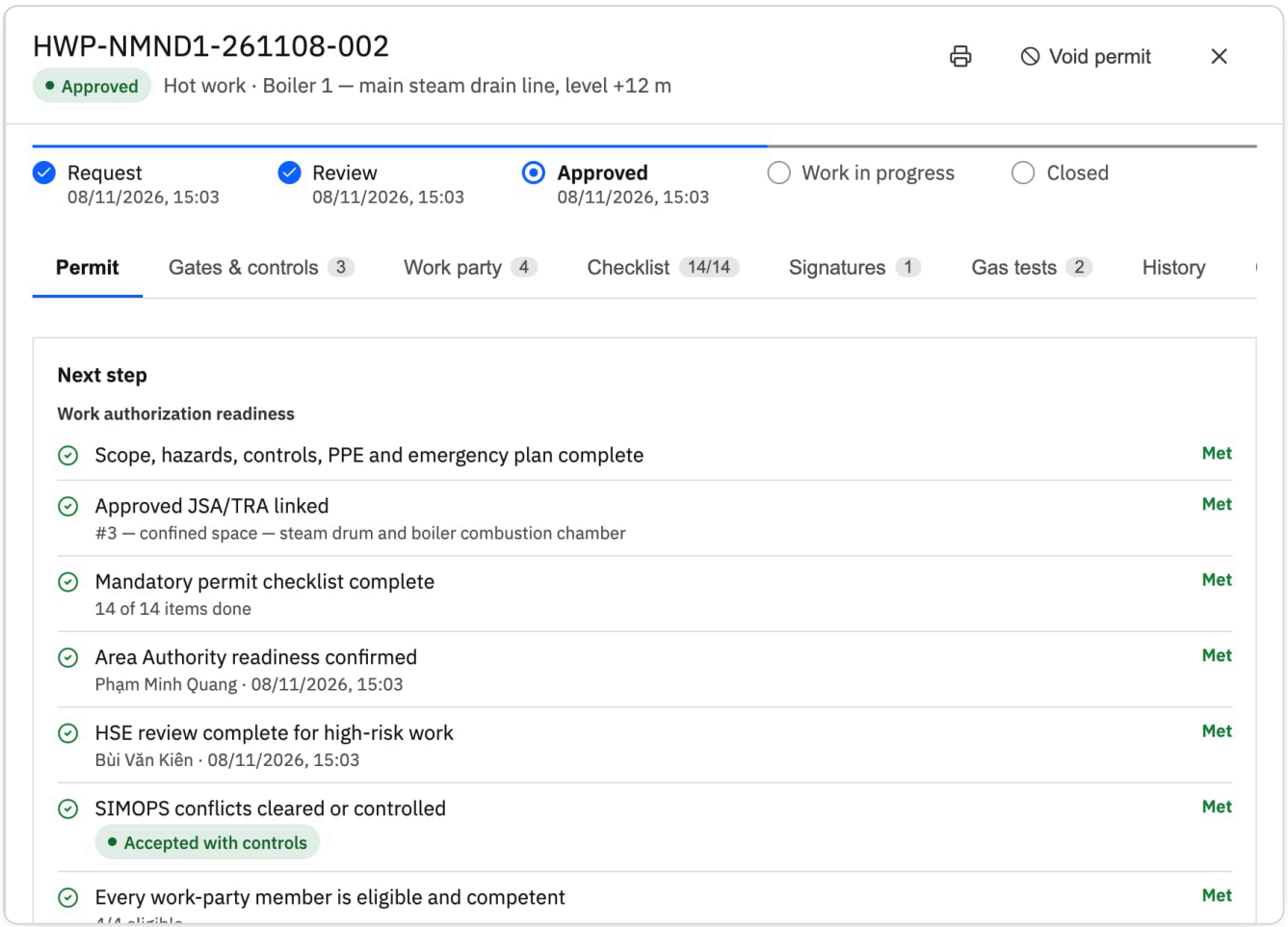
Permits to work	16
Isolation (LOTO)	17
Incidents, investigation and corrective action	18
Management of change	19
Compliance, environment and standards	20

PERMITS TO WORK

A permit that knows whether work may start

Electronic permits for hot work, work at height, confined space, electrical and cold work — each with the checks that must be met before work is authorised.

- Request, review, approval, work in progress, closure; suspension and handover
- Checklists, job safety analysis, toolbox talk acknowledged by the whole work party
- Gas tests against limits, with the detector and the tester
- The area authority is independent of the issuer
- The issuer scans the QR of the posted permit copy at the work site before high-risk work starts
- Simultaneous operations checked; statutory equipment on the asset must be in date



A hot-work permit: each readiness check met or not yet met, with who confirmed it and when.

Limits: O_2 19.5–23.5 % · LEL ≤ 10 % · CO ≤ 35 ppm · H_2S ≤ 10 ppm — Record a gas test

Time	O_2 %	LEL %	CO ppm	H_2S ppm	Detector	By
08/11/2026, 15:03	20.9	1	4	0	GD-ND1-07	Đỗ Hoàng Sơn
08/11/2026, 15:03	20.9	0	2	0	GD-ND1-07	Đỗ Hoàng Sơn

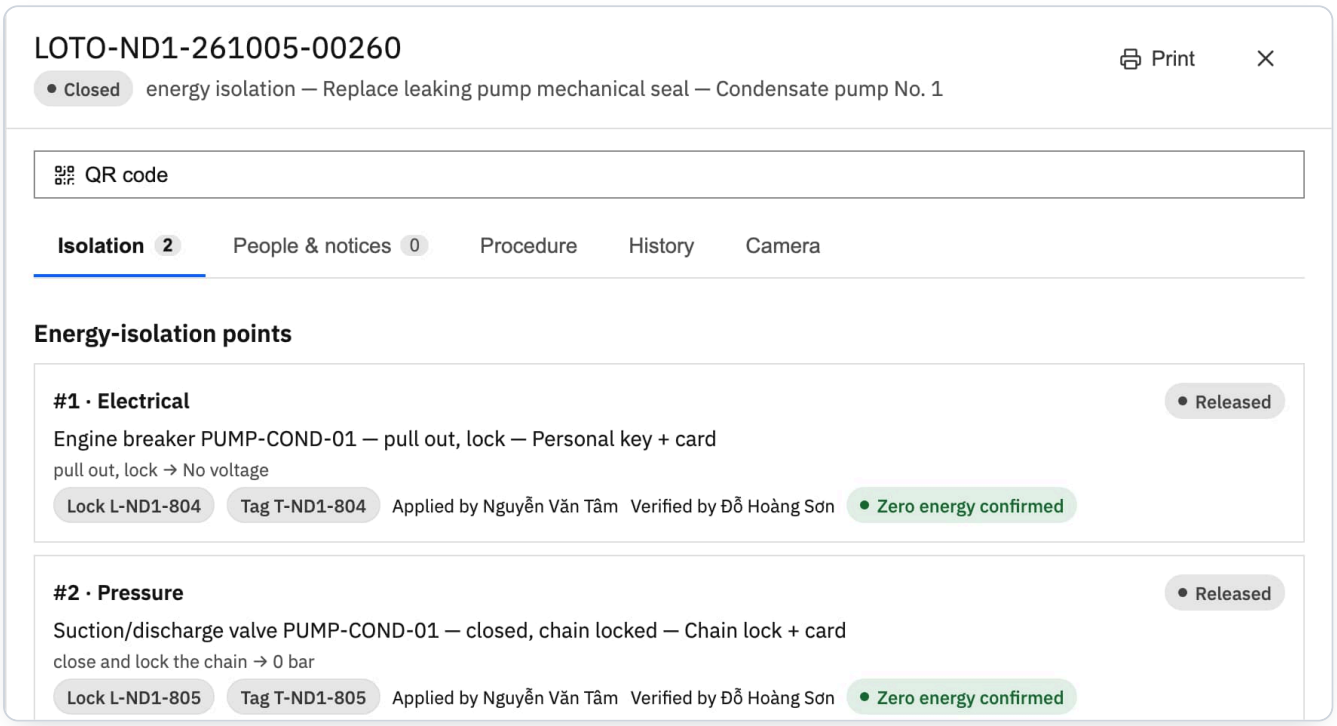
Gas tests of the same permit, within the limits shown.

ISOLATION (LOTO)

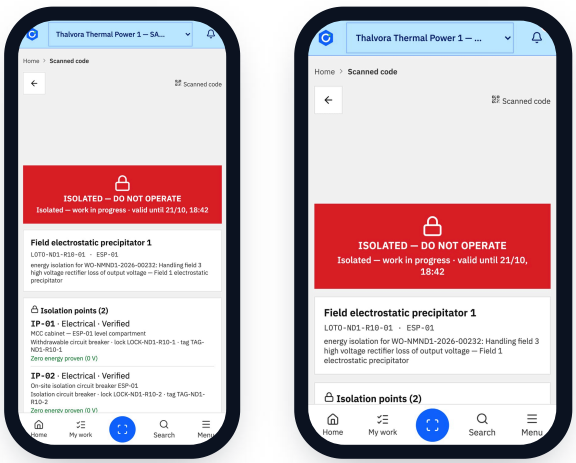
Isolation everyone can see — at the machine

Lockout/tagout with isolation points, locks and tags, independent verification and zero-energy proof — readable on a phone by anyone who scans the machine.

- Isolation points with lock and tag numbers, who applied and who verified each one
- Zero energy confirmed at every point before work starts
- Group lockbox and personal locks applied and removed by badge
- Conditions to start work listed and checked, including current training of the authorised workers
- The QR code at the machine shows “Isolated — do not operate”
- Periodic inspections of energy-control procedures



Isolation points of a condensate pump: lock and tag numbers, applied and verified by two people, zero energy confirmed.



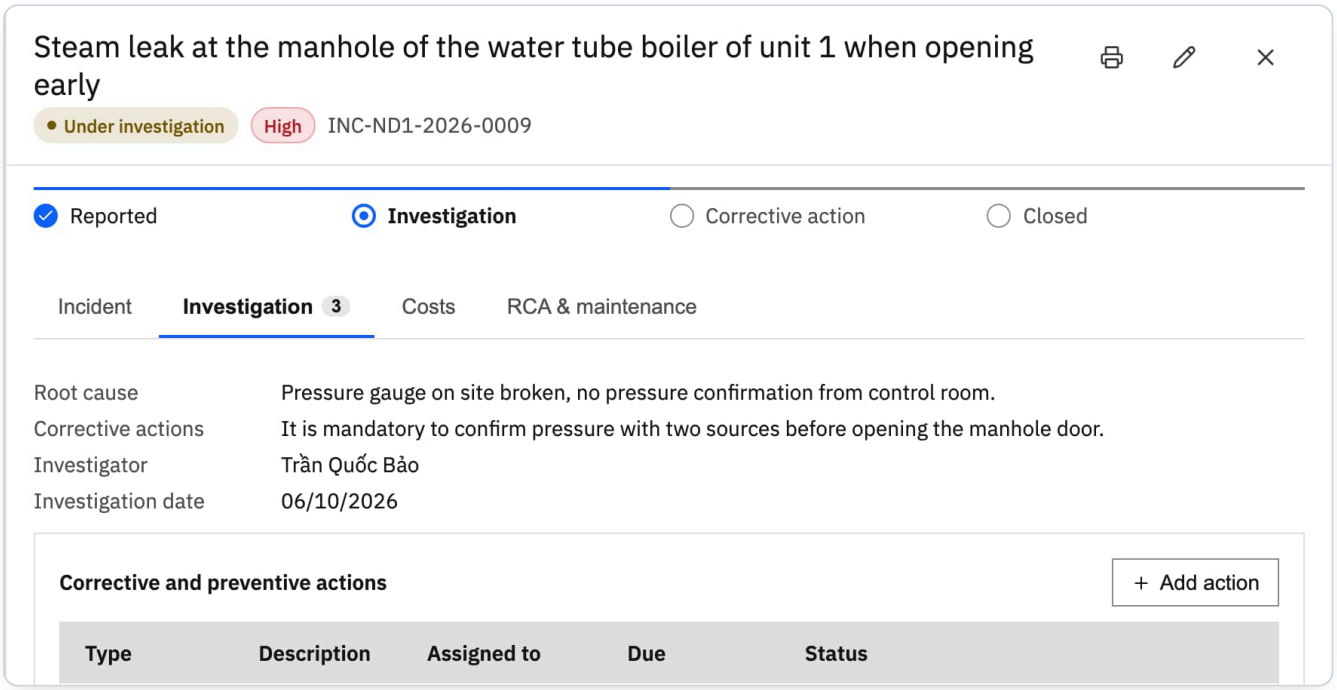
The lockout at the machine, scanned with a phone: do not operate, the isolation and its validity.

INCIDENTS, INVESTIGATION AND CORRECTIVE ACTION

Learn from every event, and prove the fix worked

Incidents and near misses are reported by anyone on site, investigated to their root cause and closed only when the corrective actions are verified.

- Incidents and near misses with severity, recordability and costs
- Root cause analysis: 5 whys, fishbone, a validated systemic cause
- Links to the maintenance work and the equipment involved
- Corrective and preventive actions with owner and due date
- Independent verification of effectiveness before closure
- Safety exceptions and impairments raised and approved by different people



An incident under investigation: root cause, corrective actions, investigator and the actions that follow.

Emergency preparedness and occupational health

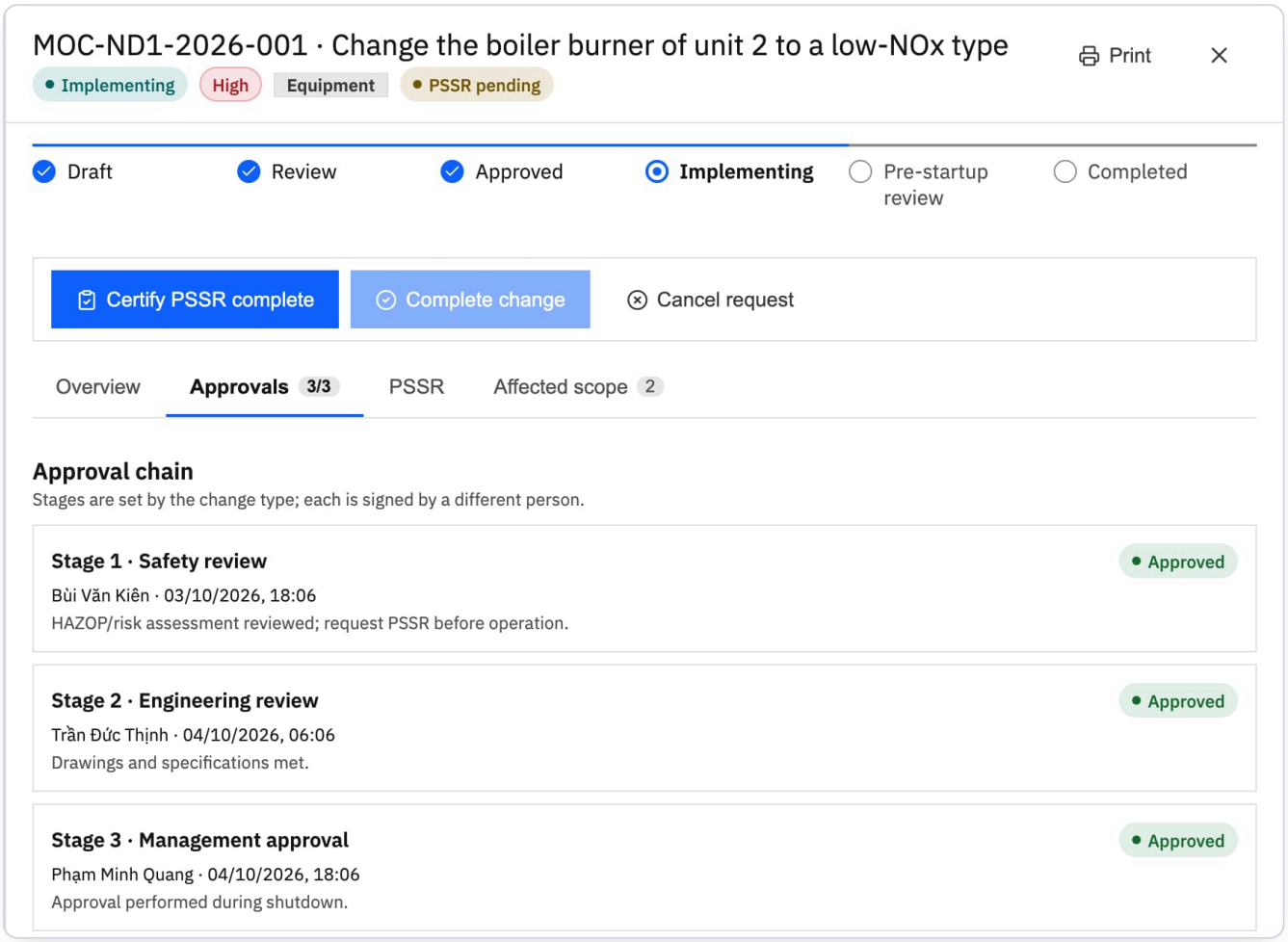
Emergency scenarios with muster points and incident commanders; drills planned, recorded and evaluated with headcount and muster time. Similar exposure groups and exposure measurements, with results above the limit marked.

MANAGEMENT OF CHANGE

No change to plant, process or procedure without review

Each change goes through the stages its type requires, is signed by different people at each stage, and cannot complete before the pre-start-up safety review.

- Change types: emergency, temporary; process, equipment or procedure
- Risk review and hazard study recorded
- Approval chain set by the change type; each stage signed by another person
- Pre-start-up safety review certified before the change completes
- Affected equipment, documents and procedures listed
- Permits and work orders refer to the change they carry out



A change to a boiler burner: safety, engineering and management approval, each signed by a different person; the pre-start-up safety review still to come.

COMPLIANCE, ENVIRONMENT AND STANDARDS

The registers the authorities ask for, kept as part of daily work

Statutory equipment, calibration, environmental aspects and emissions are kept where the work happens — so the audit finds what the plant already knows.

Statutory equipment and calibration

- Statutory equipment with inspection certificates; an expired certificate blocks work on it except the inspection itself
- Statutory inspections in the 52-week PM plan
- Calibration records of measuring instruments, including gas detectors used on permits

Environment and energy

- Environmental aspects and impacts register with significance evaluation
- Environmental permits, monitoring and releases
- Emissions and carbon intensity from fuel and purchased electricity
- Energy and utility readings per site

Hazards and HSE programme

- Hazard identification and risk assessment
- Consultation and participation of workers: anyone on site can report a concern
- HSE objectives and management review

Contractors

- Prequalification, insurance, induction and rating
- Company certificates and each worker's own training
- A contractor's account sees its own company only

Aligned with recognised standards

Opsrelia supports the practices of **ISO 45001** (hazard identification, worker participation, objectives, management review), **ISO 14001** (environmental aspects and impacts) and **ISO 55001** (governed asset criticality and safety-critical elements); failure data follow **ISO 14224** and generating-unit states **IEEE 762**. It helps a site keep the records these standards ask for; it does not certify the site, and Opsrelia itself holds no certification.

04

People: training, competence and access

The right people, trained and in date, for every job — and each person able to do exactly what their role and responsibilities require, reviewed regularly.

Training classes 22

Attendance by badge, gaps and reminders 23

Contractor workers and the permit check 24

Access control: roles, groups and effective rights 25

Segregation of duties and approval limits 26

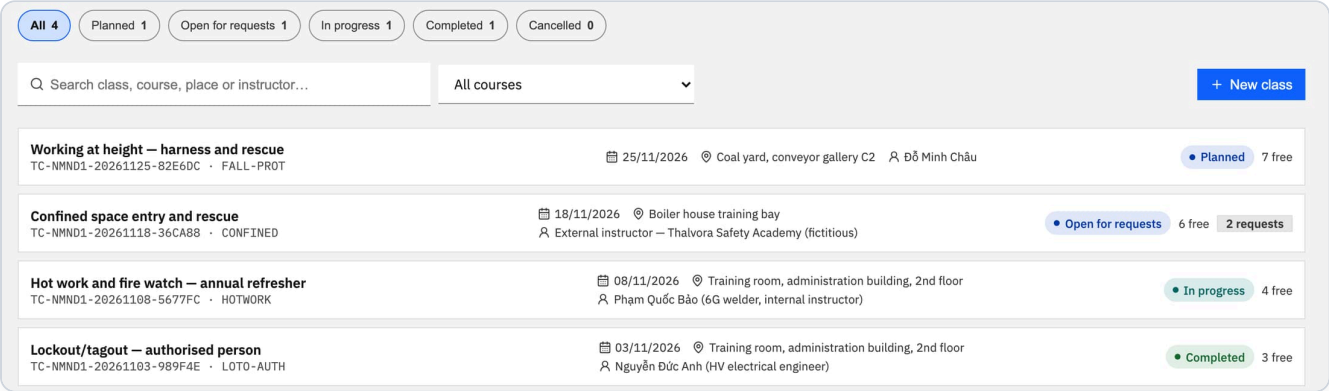
Access reviews and responsibility 27

TRAINING AND COMPETENCE NEW

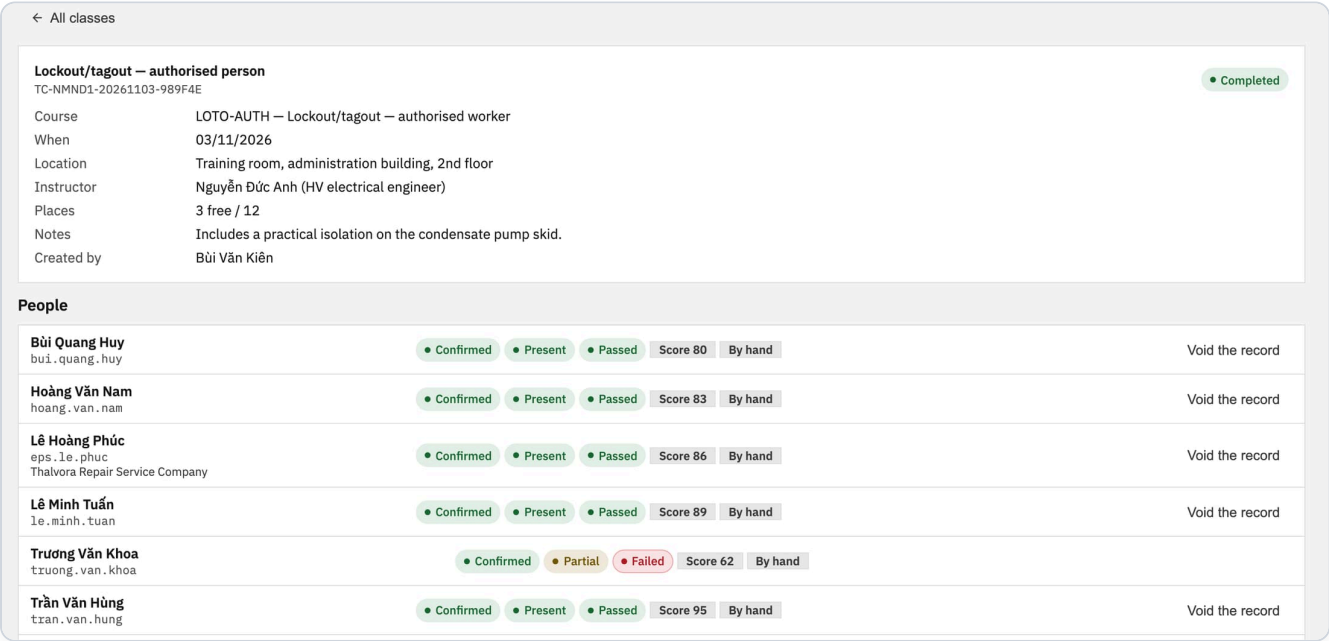
In-house classes whose results become certificates

A class of a course at one plant, with its date, place, instructor and places — for employees and contractor workers alike. Completing it writes a training record for each person who passed, with the course's expiry date.

- People chosen from the worker register: employees and contractor workers
- Printed sign-in sheet; the signed scan attached afterwards
- Attendance and results per person; nobody marks or results their own line
- A record created by a class cannot be edited or deleted; a correction voids it with a reason
- Records are read by the permit, the isolation, the qualifications and the dashboards
- A cancelled class tells its people and their companies



Classes planned, open for requests, in progress and completed, with free places and contractor requests.



A completed class: each person confirmed, present, passed or failed, with the score.

TRAINING AND COMPETENCE NEW

Attendance by badge, gaps found before they matter

At the door, each person presents a badge: one scan marks them present. Nothing is typed.

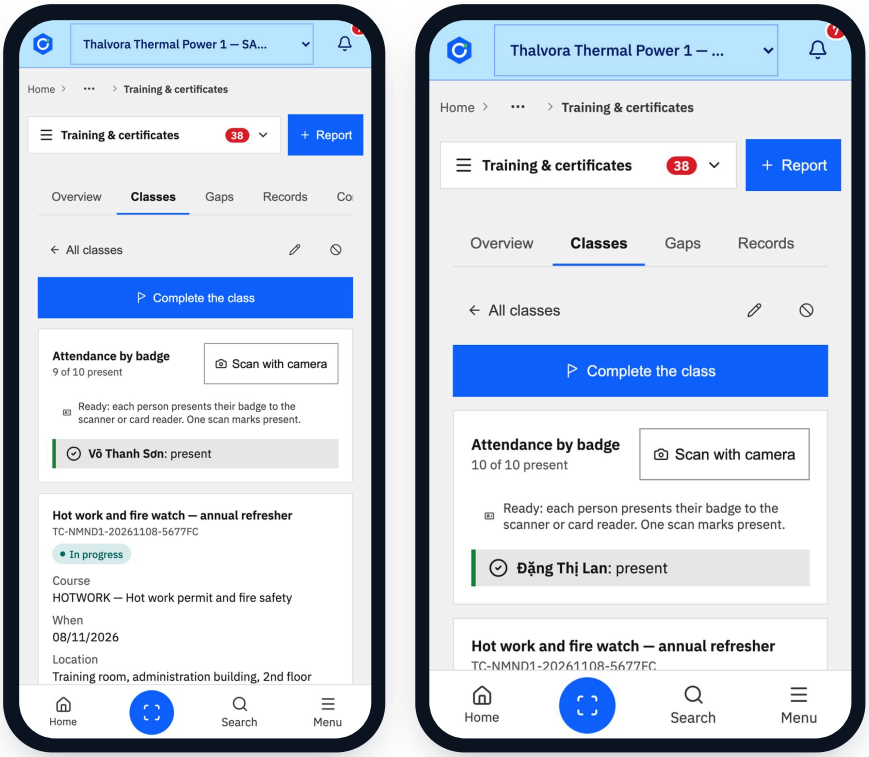
- Someone not on the list is refused with the reason — and added with one tap while places are free
- Each line shows whether it was marked by badge or by hand

Follow-up evaluation

A course may ask for an evaluation some weeks later: the manager or the training manager records whether the training was effective — never the person themself. Training that was not effective shows as a gap.

Reminders

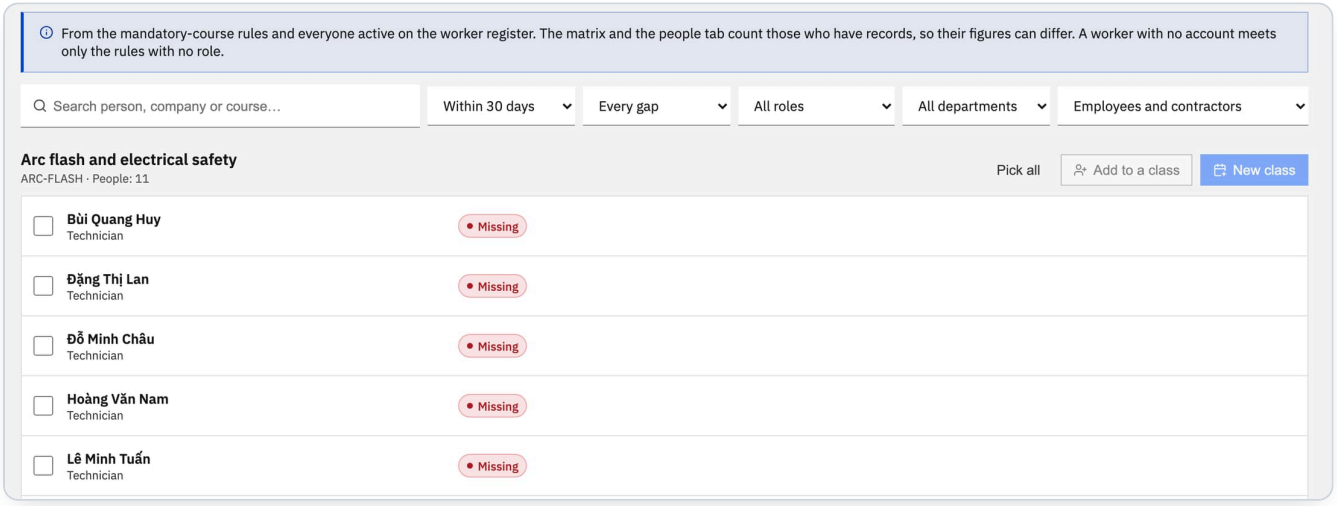
A class coming soon, a required certificate about to expire, an evaluation due: each reminder goes out once, to the people concerned.



ANDROID IPHONE

Gaps: who is missing a required course

From the mandatory-course rules and everyone active on the worker register: missing, expired, about to expire, or not effective — by role, department and contractor, ready to add to an open class or a new one.



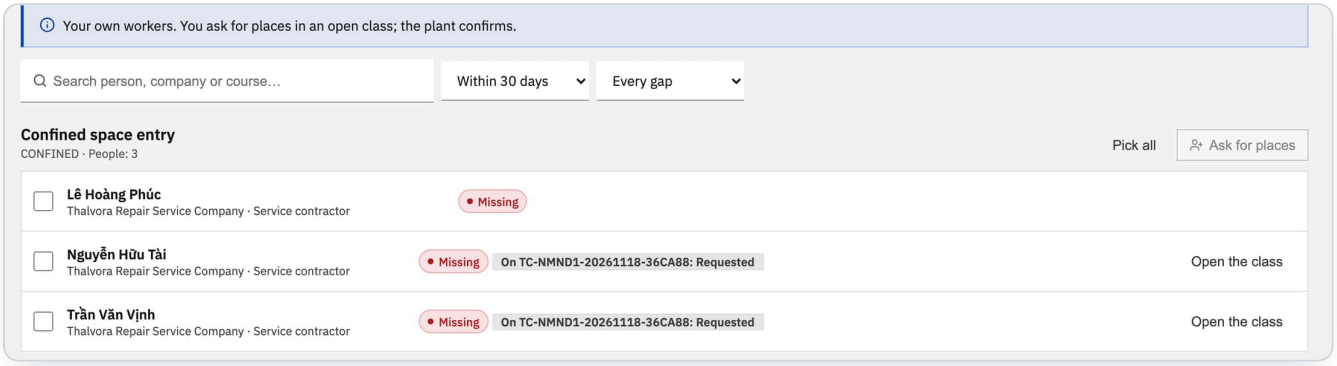
- Training gaps of the sample power plant within the next 30 days, for employees and contractors.

TRAINING AND COMPETENCE NEW

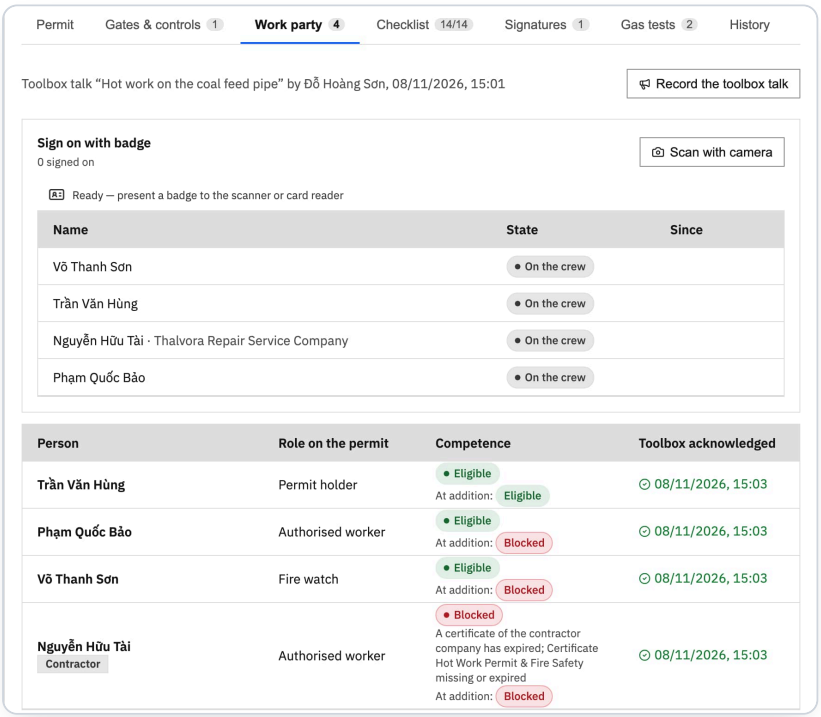
Contractor workers judged on their own training

A contractor company sees its own workers and their gaps, and asks for places in open classes; the plant confirms. When the work party signs on to a permit, each person's own certificates are checked.

- A contractor's account sees only its own company's workers and records
- Requests for places do not take a place until the plant confirms — or refuses with a reason
- Badges: sign on and off a permit, apply and remove a personal lock, clock on and off a work order
- Per plant: when the company holds a certificate but the worker has no record of their own, the check **warns** (recorded and shown) or **blocks**
- Refusals are given in words and recorded
- The worker card on a phone answers: may this person work on site?



- Signed in as the contractor: only its own workers, the courses they miss, and the classes they have asked for.



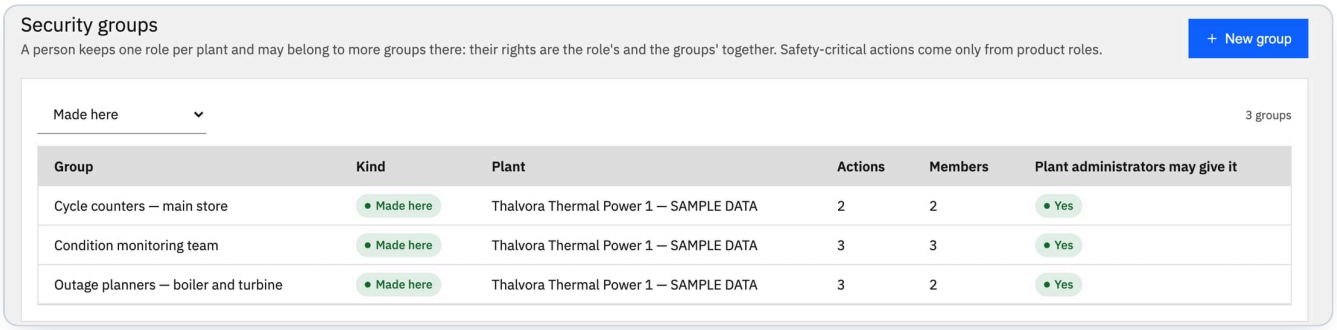
- The work party check stops a contractor worker whose company certificate for hot work has expired.

ACCESS CONTROL NEW

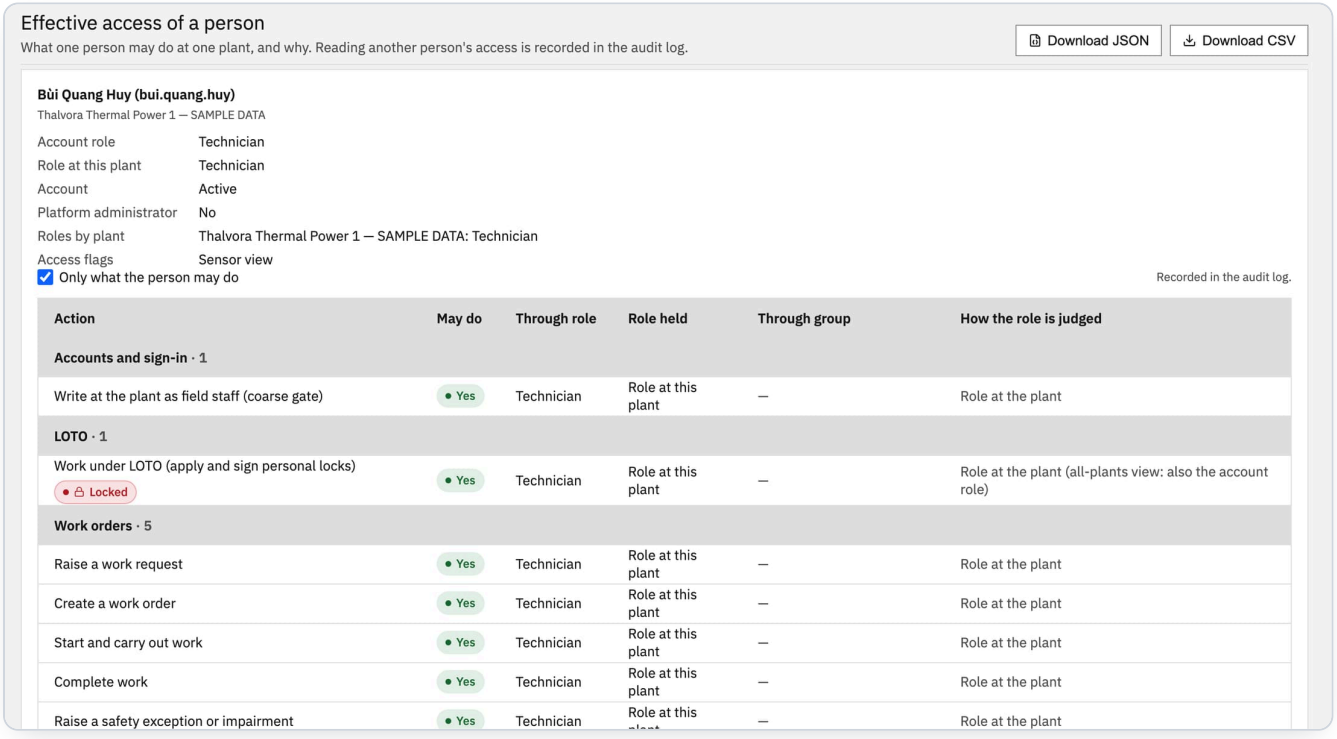
Each person does exactly what their work requires

A person holds one primary role at each plant and may belong to security groups that add rights where they work. Safety-critical actions come only from the product's roles and cannot be handed out through a group.

- Security groups made by the company, per plant or for all plants
- Plant administrators manage the groups of their own plant — never their own access
- New accounts start with no role until someone gives one
- Effective access of a person: every action, and the role or group it comes from — downloadable for auditors
- Every change of access is recorded before and after, and the person's open sessions end
- Data scopes: a role may see all work orders, or only its own, its crew's or its area's



The plant's own security groups: members, actions, and whether plant administrators may give them.



Effective access of one technician at one plant: each action and how it was granted.

ACCESS CONTROL NEW

Segregation of duties and approval limits

Some actions must never meet in one person. Opsrelia refuses any grant that would give someone both, and lets each role or group approve only up to its limit.

Segregation of duties

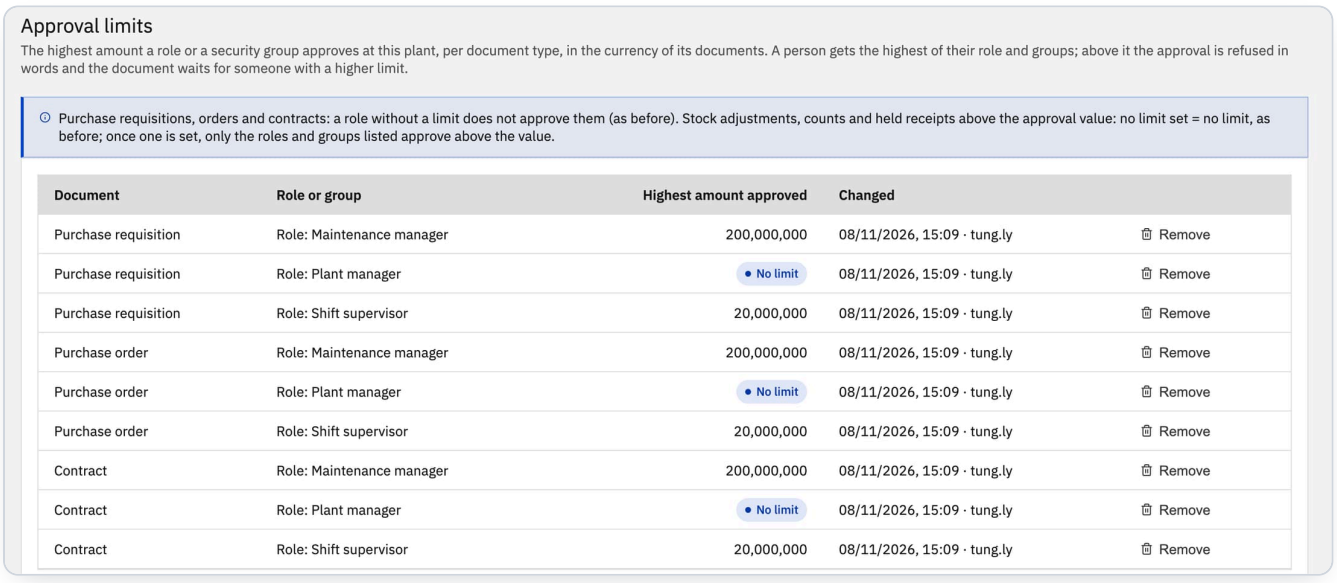
- Pairs of actions one person may not hold together — purchase request and approval, order and receipt, stock adjustment and its approval, permit issuer and area authority, and more
- A grant, group change or role change that would complete a pair is refused, naming both actions
- The approval engine still refuses self-approval at run time

Approval limits

- Per plant, per role or security group and per document: requisitions, orders, contracts, stock adjustments and counts
- A person gets the highest limit of their role and groups
- Above the limit, the refusal states the amount and the limit, and the document waits for someone whose limit covers it

Action	Not together with	Why
Approve purchase requisitions (within the amount limit)	Raise a purchase requisition	Who asks for a purchase does not approve it (purchase-to-pay control).
Receive goods into stores	Buy: RFQs, purchase orders, contracts	Who places an order does not also receive the goods against it.
Adjust stock	Approve stock adjustments	Who adjusts stock does not approve the adjustment.
Approve company items	Keep the parts register	Who creates or edits an item record does not approve it.
Approve a safety exception	Raise a safety exception or impairment	Who raises a safety exception does not approve it.
Act as Area Authority on a work permit	Approve, issue and resume work permits (issuing authority)	The issuing authority of a permit to work and the area authority are two people.

Pairs of actions one person may not hold together, each with the reason.



Approval limits per document type and role at the sample power plant.

ACCESS CONTROL NEW

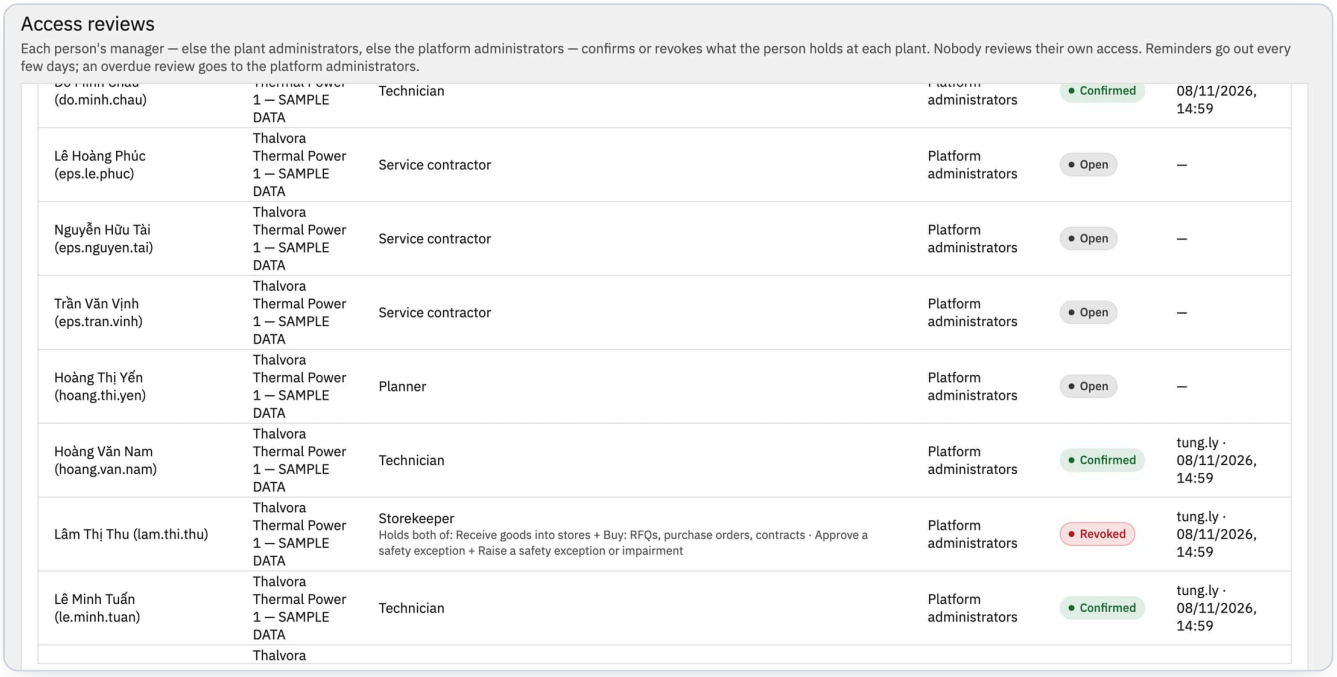
Access reviewed every quarter; every record has an owner

Periodic access reviews

- Every quarter, or when started by hand, each person's manager confirms or revokes what the person holds at each plant
- Nobody reviews their own access; reminders, and escalation when a review is overdue
- A report of the campaign for the auditor — in the spirit of ISO 27001

Accounts and the company directory

- Directory groups (Active Directory / LDAP) mapped to security groups and roles per plant
- An end date per account, and an optional lock after a period without use
- Each person's manager recorded, for reviews and for “people I supervise”



Access reviews

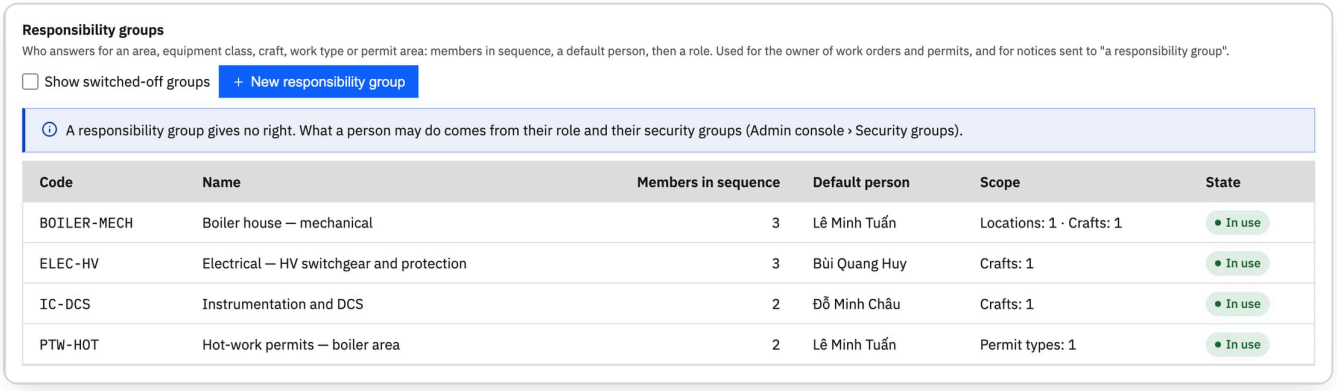
Each person's manager — else the plant administrators, else the platform administrators — confirms or revokes what the person holds at each plant. Nobody reviews their own access. Reminders go out every few days; an overdue review goes to the platform administrators.

(do.minh.chau)	1 — SAMPLE DATA	Technician	administrators	Confirmed	08/11/2026, 14:59
Lê Hoàng Phúc (eps.le.phuc)	Thalvora Thermal Power 1 — SAMPLE DATA	Service contractor	Platform administrators	Open	—
Nguyễn Hữu Tài (eps.nguyen.tai)	Thalvora Thermal Power 1 — SAMPLE DATA	Service contractor	Platform administrators	Open	—
Trần Văn Vịnh (eps.tran.vinh)	Thalvora Thermal Power 1 — SAMPLE DATA	Service contractor	Platform administrators	Open	—
Hoàng Thị Yến (hoang.thi.yen)	Thalvora Thermal Power 1 — SAMPLE DATA	Planner	Platform administrators	Open	—
Hoàng Văn Nam (hoang.van.nam)	Thalvora Thermal Power 1 — SAMPLE DATA	Technician	Platform administrators	Confirmed	tung.ly · 08/11/2026, 14:59
Lâm Thị Thu (lam.thi.thu)	Thalvora Thermal Power 1 — SAMPLE DATA	Storekeeper Holds both of: Receive goods into stores + Buy: RFQs, purchase orders, contracts · Approve a safety exception + Raise a safety exception or impairment	Platform administrators	Revoked	tung.ly · 08/11/2026, 14:59
Lê Minh Tuấn (le.minh.tuan)	Thalvora Thermal Power 1 — SAMPLE DATA	Technician	Platform administrators	Confirmed	tung.ly · 08/11/2026, 14:59
	Thalvora				

An access review in progress: each person's access confirmed or revoked, with who decided and when.

Responsibility groups and owners

Who answers for an area, a craft or a permit type: members in sequence, a default person and a fallback role. Work orders and permits carry an owner and an owner group; notices go to whoever is responsible now — the first member on shift — and any fallback is recorded.



Responsibility groups

Who answers for an area, equipment class, craft, work type or permit area: members in sequence, a default person, then a role. Used for the owner of work orders and permits, and for notices sent to "a responsibility group".

Show switched-off groups + New responsibility group

A responsibility group gives no right. What a person may do comes from their role and their security groups (Admin console › Security groups).

Code	Name	Members in sequence	Default person	Scope	State
BOILER-MECH	Boiler house — mechanical	3	Lê Minh Tuấn	Locations: 1 · Crafts: 1	In use
ELEC-HV	Electrical — HV switchgear and protection	3	Bùi Quang Huy	Crafts: 1	In use
IC-DCS	Instrumentation and DCS	2	Đỗ Minh Châu	Crafts: 1	In use
PTW-HOT	Hot-work permits — boiler area	2	Lê Minh Tuấn	Permit types: 1	In use

Responsibility groups of the sample power plant, with members, default person and scope.

05

Operations and insight

Gloves on, at the top of a structure, the technician should not type. Managers should not argue about the numbers. And the plant should adapt the product without waiting for a programmer.

Mobile and QR codes 29

Equipment dispatch and operations systems 30

Shift roster, operations and notices 31

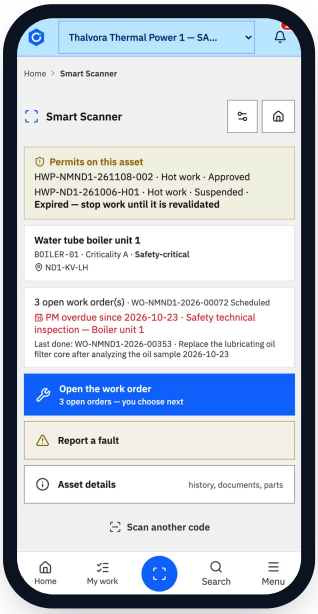
Reports centre and group view 32

Low-code: adapt it without programming 33

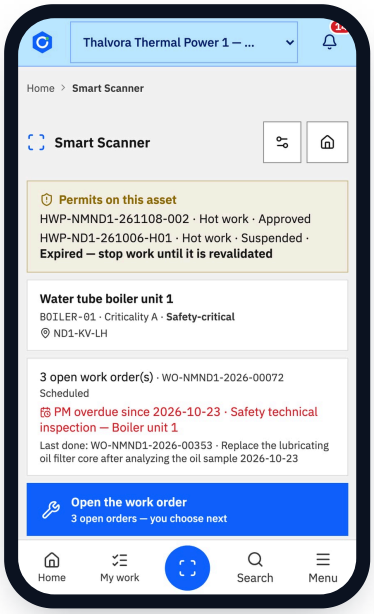
MOBILE AND QR CODES

A scan identifies the asset; one tap turns it into work

The same screens on Android and iPhone, on tablets and on handheld scanners. Scanning a tag never needs typing: what is safe to know comes first, then the work.



ANDROID



IPHONE

Scan the equipment

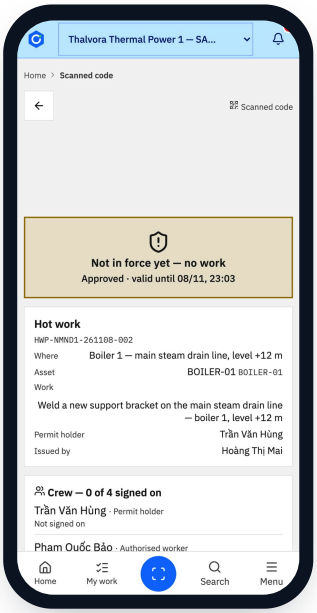
The asset card opens with the permits in force on the equipment, then its open work and the PM due. One tap opens the work order — or starts new work.

- Equipment tag of a boiler scanned on Android and iPhone.

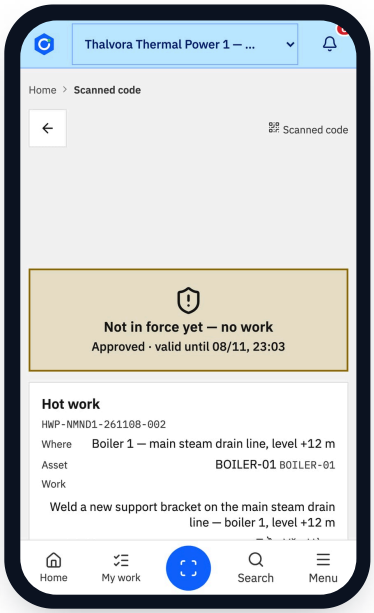
Scan the permit at the work site

The permit's QR code says whether work may start now, where, who holds the permit, who issued it and who of the crew has signed on.

- A hot-work permit approved but not yet in force: no work.



ANDROID



IPHONE

- System QR codes on equipment, permits, isolations, work orders, workers and contractors
- Bin, lot and serial labels for the stores
- The plant may let a role or a device start work at the scan itself
- One-time phone setup; the technician's own work list on the phone

EQUIPMENT DISPATCH

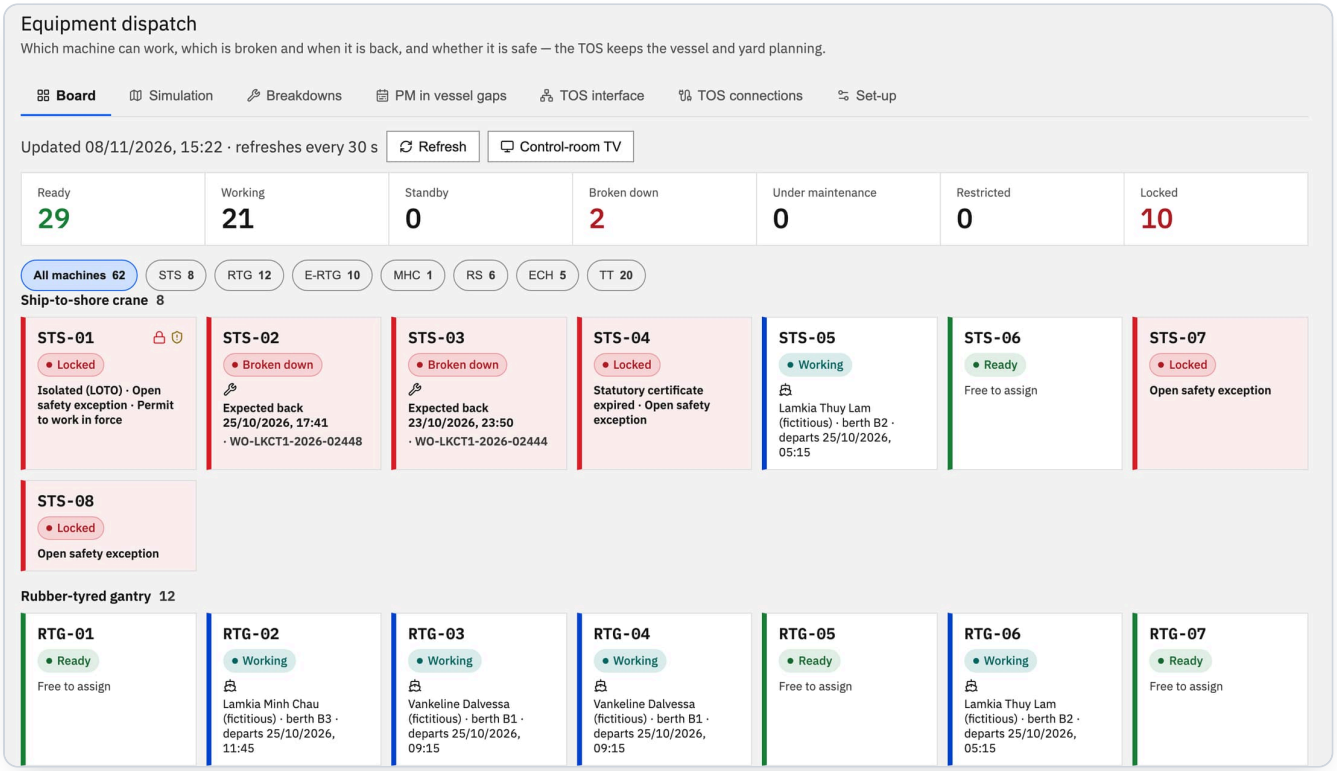
Which machine can work, which is down, and whether it is safe

An equipment board that follows the operations plan — each vessel call at a terminal, each production run in a plant — so maintenance fits into the plan instead of fighting it.

- States: ready, working, standby, broken down, under maintenance, restricted, locked for safety
- Breakdown reported by scanning the machine's QR: one tap raises the emergency work order, tells the supervisor and maintenance, and proposes a standby machine
- PM in the gaps of the plan, proposed by the system and approved by another person
- Control-room TV through a link that can be withdrawn

Connections to operations systems

The board takes the schedule, the machine assignments and the moves from the site's own operations system — at a terminal, the terminal operating system — without programming: the system sends the data, a file is uploaded, a shared folder is read, or the system is read on a schedule. Columns and codes are mapped on a screen. When the data is late, the board says since when.



Equipment board of the sample seaport: every machine by state, with the vessel call it serves or the reason it is locked.

SHIFT ROSTER, OPERATIONS AND NOTICES

The notice reaches the person on duty — never nobody

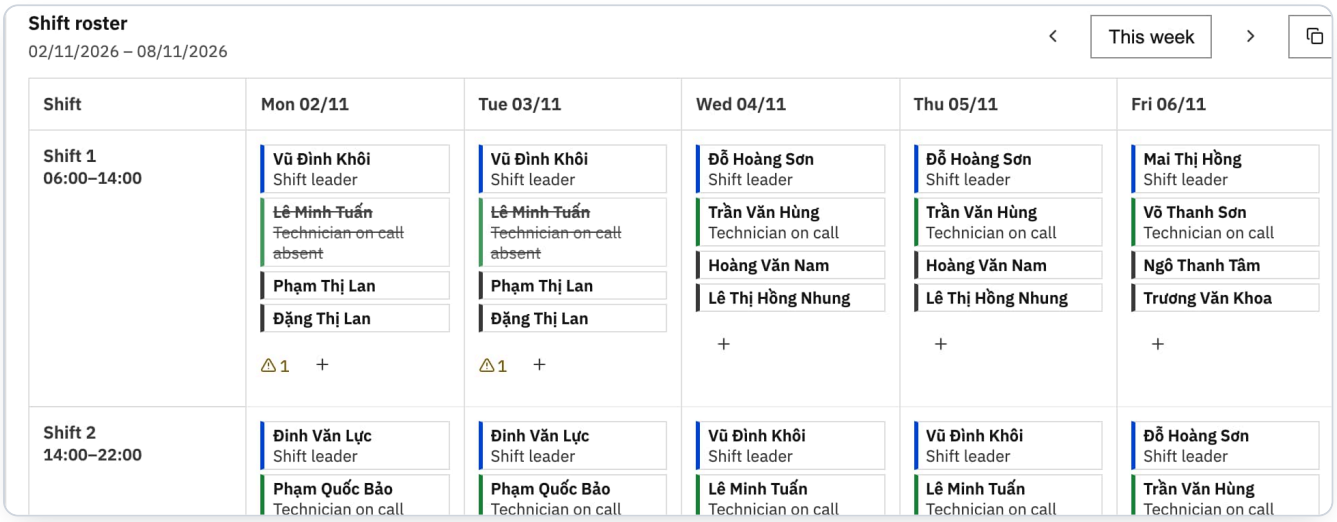
Plants and terminals that run around the clock know who holds each duty on every shift. A notice that needs someone now goes to the person on duty, in the tools the team already uses.

Shift roster and operations

- Roster per shift and day with duties: shift leader, supervisor, dispatcher, technician on call, crew; rotations and absences
- “Who is on duty now”; when nobody can be reached, the notice goes to the whole role, and that fallback is recorded
- Shift logbook (a correction is a new version), two-signature handover, operator rounds with limits

Notification channels

- Microsoft Teams, Google Chat, Slack, e-mail and a signed webhook
- Each channel chooses its notices — approvals waiting, escalations, breakdowns, rule notices — and its language
- A delivery log with the result of every message; addresses and keys shown masked



Week roster of the sample power plant: shifts, duties, and absences struck through.

The notice reaches the team’s chat

A “when … then …” rule written by the maintenance manager tells the shift supervisor of every urgent job, and the notice is copied to the maintenance team's Microsoft Teams channel, with a delivery log for every message.

The bell keeps everything

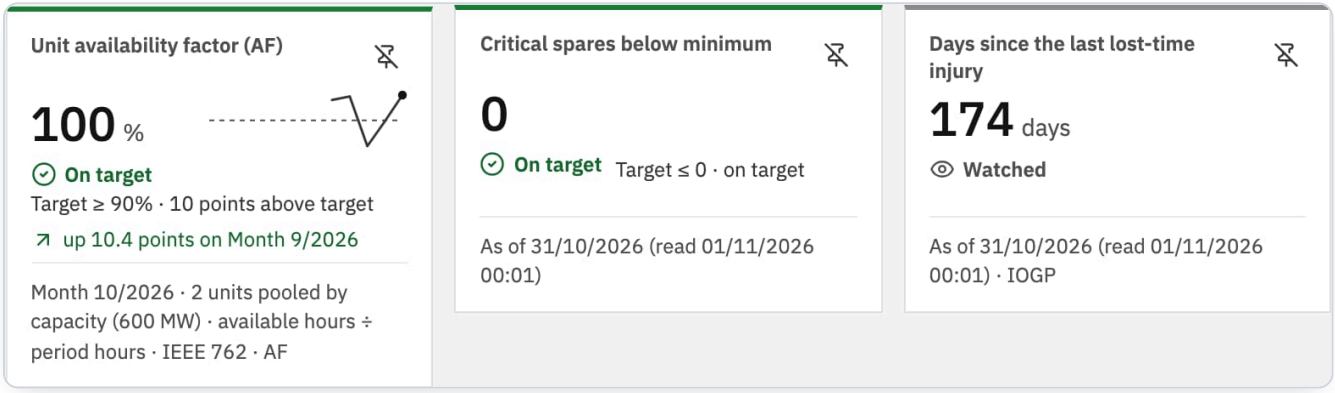
Channels reach people where they already work; the bell in the product still keeps every notice, so nothing depends on one chat tool.

REPORTS CENTRE AND GROUP VIEW

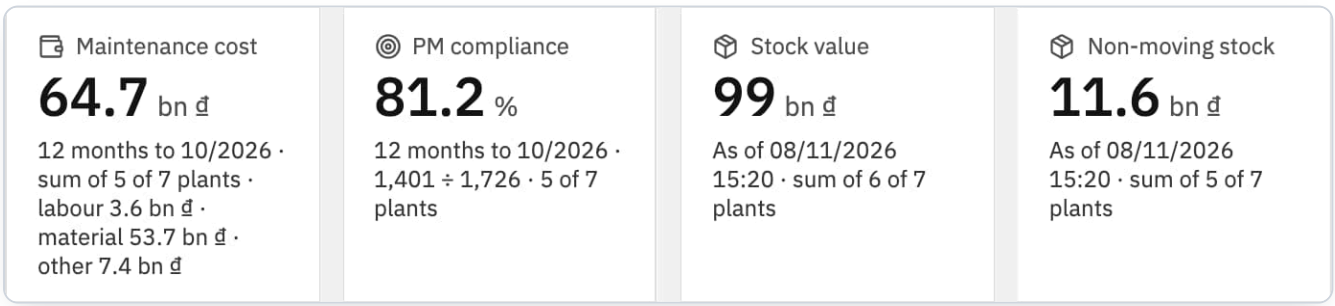
Figures the board can trust

Every indicator is computed from the records, carries its definition and opens on the records behind it. Group management sees every site side by side.

- Dashboards by theme: maintenance and reliability, PM, assets, stores, supply, safety, operations
- Definitions referenced to SMRP, IEEE 762 and IOGP where they apply; targets and trends per indicator
- A personal page of pinned indicators; a default page per role
- Library of standard reports, exported to Excel, PDF and CSV with every row
- Closed months never change silently; late data completes a month once, recorded
- Group analytics: work, cost, safety and stock of every plant, each figure with what it is made of



Indicator tiles of the reports centre: value, target, trend and the definition behind each figure.



Corporate analytics: figures of the whole group, each saying how many plants and records it covers.

Reports ready to sign

Standard reports carry a signature block for the responsible manager, and export with every row behind the figures.

Missing data is said

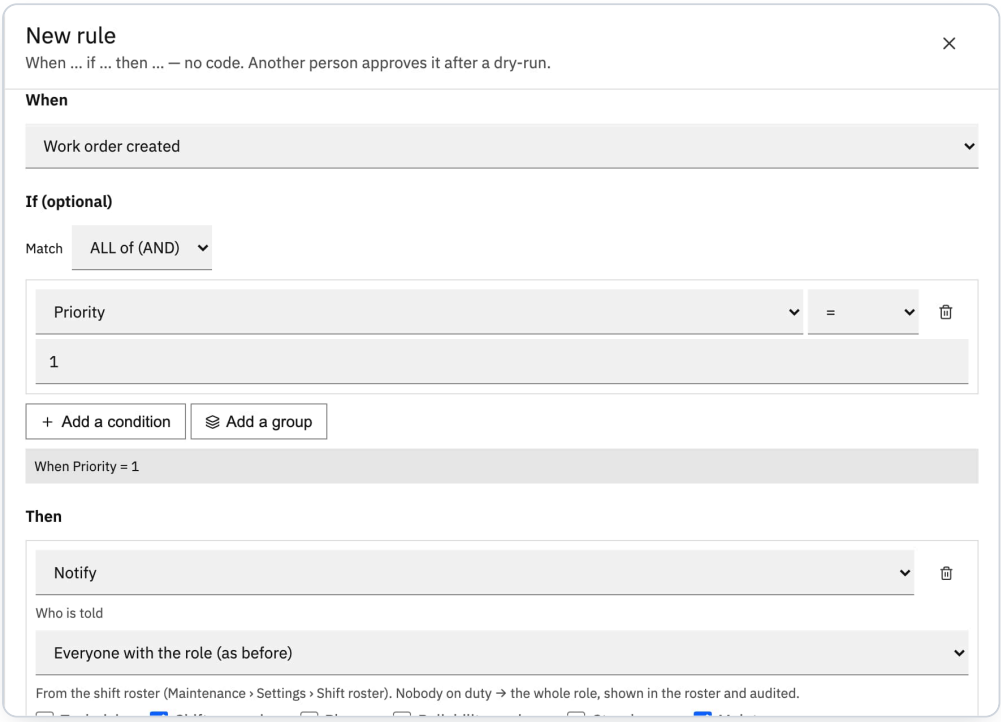
When a figure cannot be computed — no records in the period, a value not recorded — the tile says so instead of showing a guess.

LOW-CODE

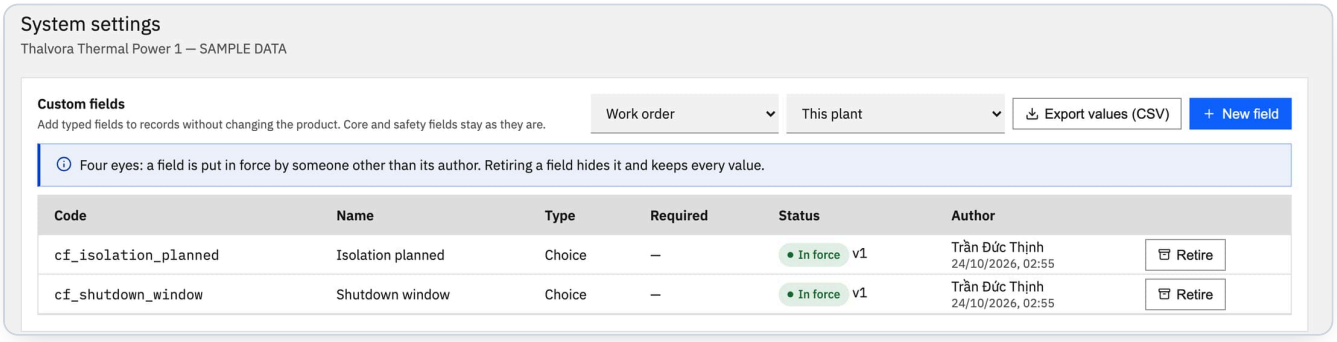
Adapt it without programming — safely

Every company works a little differently. Key users adapt approvals, records, dashboards and alerts themselves, with the same safeguards as the rest of the product: a second person reviews, a test run comes first, safety rules cannot be bent.

- **Approval-flow designer:** conditions, versions, a simulation on real records, put in force by a second person
- **Custom fields** on assets, work, purchasing and safety records; core and safety fields stay as they are
- **My dashboards** from the product's own indicators, shared after a manager approves
- **"When … if … then …" rules** with safe actions only — notify, raise a request, fill a field — dry-run first and approved by another person



A new rule: when a work order is created with priority 1, tell the shift supervisor and the maintenance manager.



Custom fields on work orders, each put in force by someone other than its author.

06

Trust, editions and next step

How Opsrelia keeps working when the network does not, how it is installed and licensed, and how to try it on your own equipment.

Business continuity 35

Deployment and trust 36

Editions: HSSE, CMMS and EAM 37

BUSINESS CONTINUITY NEW

Work goes on when the network or a server does not

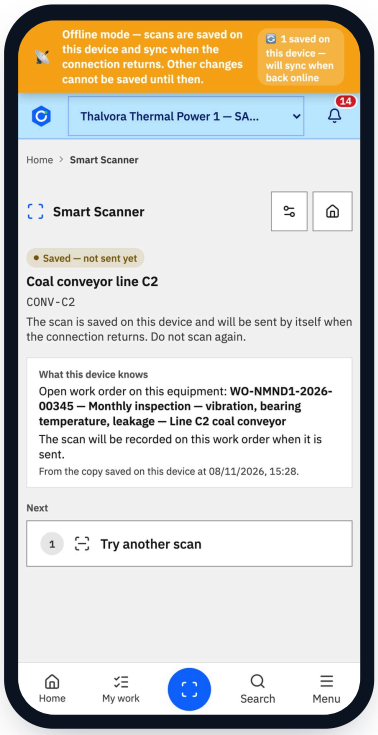
Phones keep scanning without a network, and a standby server keeps a copy of the records ready to take over.

Works offline on the plant floor

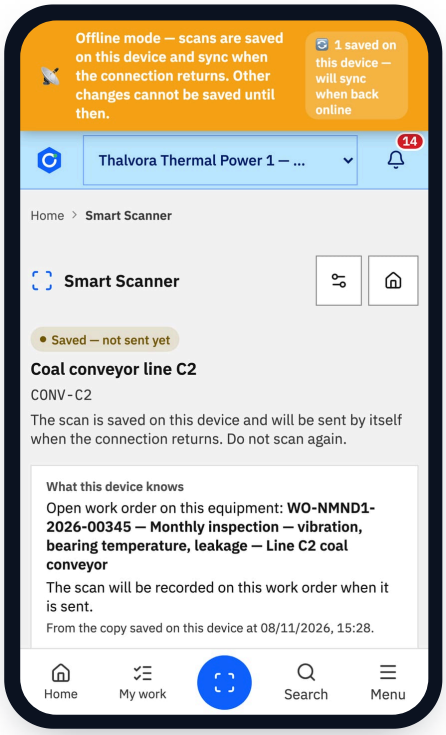
- When a phone loses its connection, scanning still works: the scan is saved on the phone and sent by itself when the connection returns
- The phone keeps a copy of the plant's equipment, materials and open work orders, refreshed every 15 minutes, so it can say what was scanned and what work is open
- A banner says the phone is offline and counts the scans waiting; other changes wait for the connection
- A plant-floor station can keep scans flowing between the devices of a plant while the link to head office is down, and passes them on when it returns

A standby server

- A second server keeps an up-to-date copy of every site's records
- When the main server fails, an administrator switches the standby over and work continues on it
- Scheduled jobs — e-mails, notices, PM generation, escalations — stay held on the standby until it takes over, so nothing is sent twice
- Changes the standby cannot accept are kept and shown, never silently lost



ANDROID



IPHONE

- No network: the scan is kept on the phone, with what the phone knows about the equipment, and sent when the connection is back.

DEPLOYMENT AND TRUST

Installed once, used at every site

Opsrelia is installed once, at the company's head office or in its own data centre; every plant connects over the company network.

One installation, every site

Plants, the repair-services company and head office work in the same installation. Each site keeps its own records and settings; group management sees across them. A standby server can take over.

Works on the plant floor

Phones, tablets and handheld scanners on Android and iOS, with a one-time setup per device. Scans keep working without a network.

Roles and audit trail

A role per person per site, security groups, approval limits, periodic access reviews. Every create, change, approval and close-out is recorded with who and when.

Licensed by module

Buy the areas you need and add others later. Records are never lost when a module is switched off.

Industry profiles

Each site chooses an industry profile — manufacturing and process, energy, ports and terminals — with its asset classes, failure codes, permits, indicators and checklists.

Vietnamese and English

Every screen in Vietnamese and English; plants in Vietnam find the registers they are asked for.

Your existing data

An import wizard loads existing registers from CSV files: columns matched to fields, a preview, then the import — so a site starts from what it already has.

Third-party licences

Legal and purchasing teams find every library, font and dataset the product uses, with its licence, in the product's About page.

EDITIONS

HSSE, CMMS or the full EAM

One product, offered in three editions. Start with the one you need now and add the other later: the records stay, and the two sides link up at once.

	Opsrelia HSSE Health, safety, security and environment	Opsrelia CMMS Maintenance and operations	Opsrelia EAM Both, and the group
Permits to work, isolation (LOTO), management of change	Included	—	Included
Incidents, investigations, emergency and health	Included	—	Included
Compliance, environment and emissions	Included	—	Included
Contractors, training and competence	Included	—	Included
Work orders, PM, planning and scheduling	—	Included	Included
Asset register and reliability	Equipment register and equipment QR card	Included	Included
Materials, stores, quality, energy and utilities	—	Included	Included
Operations: shift logbook, handover, rounds, dispatch board	—	Included	Included
Worker register and badges, procedures, floor plans, corrective actions, root cause analysis, calibration	Included	Included	Included
Reports centre, access control, audit trail, mobile and QR	Included	Included	Included
Supply chain, vendors, group analytics, ERP connection	—	—	Optional enterprise package

The edition follows the packages licensed: safety only is HSSE, maintenance only is CMMS, anything more is EAM. The edition's name appears in the product. Prices are quoted per installation; please ask.

Opsrelia EAM

NEXT STEP

A pilot at one site

The best way to judge Opsrelia is to run it on your own equipment, with your own people, at one site.

1 · Prepare

Agree the scope and how success is measured; load assets, parts, crews, people and existing PM plans; set roles and limits.

2 · Run

Run requests, work, permits, isolation, training, stores and purchasing in the pilot area; tag the equipment and issue badges.

3 · Review

Review the figures with your managers and decide how to extend to the other sites.

Tell us which site, which area and which problem you want to solve first, and we will prepare a pilot plan.

WEBSITE

opsrelia.com

E-MAIL

info@opsrelia.com

Opsrelia EAM is developed by Công ty TNHH Công nghệ số Nghi Sơn, since 2021. All companies, people and places in the sample data are fictitious. Product names and features described are those available in November 2026.