

BUSINESS CONTINUITY PLAN

Transformer Predictive Monitoring Agent

Agent ID: TAVAC0004370 | Risk Assessment: TAVAGR0003752

Document Version	1.0 – Initial Release
Classification	Internal – Confidential
Document Date	March 2026
Agent Owner	Sunil Soares
Environment	Tavro Catalog
Integrated System	SAP Plant Maintenance
Business Process	Regulatory Reporting & Compliance (Tier 3)
Blended Risk	Medium (3.4 / 10)
Regulatory Risk	HIGH – EU AI Act Art. 6 (Critical Infrastructure)

Prepared by: Enterprise Risk & Reliability Engineering

1. Agent Assessment

1.1 Agent Overview

Agent Name: Transformer Predictive Monitoring

Agent ID: TAVAC0004370 | Risk Assessment ID: TAVAGR0003752

Owner: Sunil Soares | Environment: Tavro Sandbox | Platform: Tavro AI Agent Registry

The Transformer Predictive Monitoring agent is an AI-powered decision-support system designed to analyze 30 years of transformer operational and outage history to predict the likelihood of transformer failure, identify root causes, and generate prioritized maintenance recommendations. It operates as a supervised, step-driven analytical assistant integrated with SAP Plant Maintenance (SAP PM) and is scoped for Regulatory Reporting and Compliance (Tier 3 – Operational) business processes.

The agent ingests structured operational telemetry and condition-monitoring data, applies a five-step diagnostic protocol, and outputs a structured risk rating (1–5 scale), plain-language summary, gap identification, and maintenance recommendation. It does not autonomously execute actions — it produces recommendations that must be acted upon by human technicians or triggered as SAP PM work orders via the CMMS Integration Tool.

1.2 Inputs and Outputs

Category	Data Element	Source / Destination
Inputs	Load percentage, winding temperature, oil temperature, ambient temperature, voltage input/output, current, vibration level	SCADA / Real-Time Sensor Data Integration Tool
Inputs	Dissolved Gas Analysis (DGA) readings, oil moisture level, insulation resistance, partial discharge level	DGA Diagnostic Tool; Transformer Outages table
Inputs	Last maintenance date, maintenance type, maintenance notes, component replaced, technician ID	CMMS Integration Tool (SAP PM)
Inputs	Transformer ID, serial number, model, manufacturer, type, installation date, substation ID, location, outage history	Transformer Outages table (30-year historical dataset)
Outputs	3-sentence condition summary, risk score (1–5), predicted failure probability, maintenance recommendation, alert status	SAP PM work order queue: Transformer Outages table (risk_score, maintenance_recommendation, predicted_failure_probability, alert_status)

1.3 Upstream and Downstream Dependencies

Dependency Type	Component	Direction	Criticality
Data Source	Transformer Outages Table (30-year history)	Upstream (READ)	Critical – primary training and inference substrate

Integration Tool	SCADA / Real-Time Sensor Data	Upstream (READ)	High – real-time anomaly detection depends on this feed
Integration Tool	DGA Diagnostic Tool	Upstream (READ)	High – DGA patterns are key failure precursors
Integration Tool	CMMS / SAP PM Integration	Bidirectional	Critical – closes loop between prediction and action
Application	SAP Plant Maintenance	Downstream (WRITE)	Mission Critical – Emergency Tier 1
Business Process	Regulatory Reporting & Compliance	Downstream	Tier 3 Operational

1.4 Business Criticality Classification

Business Criticality: HIGH

The agent is classified as HIGH business criticality, justified by three converging factors: 1. Mission-Critical Application Integration: SAP Plant Maintenance is designated Mission Critical / Emergency Tier 1. Any agent disrupting its data quality or work order accuracy has direct operational consequences. 2. EU AI Act – Critical Infrastructure Designation: Under Article 6, the agent is classified as operating within critical infrastructure (electricity supply), elevating its regulatory risk to HIGH. Non-compliance or unreliable outputs create regulatory exposure. 3. Safety and Financial Exposure: Transformer failures in electrical utility contexts carry safety risks (arc flash, fire, electrocution), extended outages with high downtime costs (captured in the downtime_cost field), and repair costs. Missed predictions directly translate into unplanned failures.

2. Failure Scenarios

2.1 Failure Mode Classification

The following failure modes have been identified across four categories: data integrity failures, model/inference failures, integration failures, and operational/governance failures.

#	Failure Mode	Root Cause(s)	Likelihood	Impact	Risk Level	Early Warning Indicators
F1	Stale / Missing SCADA Feed	SCADA integration timeout; sensor hardware fault; network interruption between field and integration layer	Medium	High	HIGH	Agent returns 'data not available' flags; risk scores frozen for >1 cycle; SCADA heartbeat failure alert
F2	DGA Data Gap or Corruption	Lab delay in DGA submission; instrument calibration error; ETL pipeline failure from lab to Transformer Outages table	Medium	High	HIGH	DGA columns null in Transformer Outages table; agent skips DGA step in output; anomalous gas value outliers
F3	Historical Data Drift / Schema Change	Schema evolution in Transformer Outages table without backward-compatible migration; ETL breaking change	Low	Critical	HIGH	Agent inference errors; null output fields; sudden uniform risk score distribution
F4	Model / LLM Output Degradation	LLM version change by provider; prompt token limit exceeded on large transformer records; prompt injection via malformed maintenance notes	Medium	High	HIGH	Risk scores systematically biased (all 5s or all 1s); recommendations generic/nonsensical; output format deviating from template
F5	SAP PM / CMMS Write Failure	SAP PM system unavailability; integration credential expiry; API rate throttling; network partition between agent and SAP PM	Medium	High	HIGH	Work orders not created in SAP PM for high-risk transformers; alert_status field in table not updating; SAP PM integration error logs

F6	Agent Produces Overconfident / Fabricated Output	Hallucination on missing data fields (violates agent's 'do not assume' rule); adversarial maintenance notes injected upstream	Low	Critical	HIGH	Recommendations reference data elements do not present in input; risk scores inconsistent with raw sensor values; audit trail gaps
F7	Autonomy Level Escalation	Configuration drift increasing autonomy_level from 0.0; accidental elevation through platform misconfiguration	Low	Critical	MEDIUM	Work orders created without human review; agent modifying records beyond risk_score and recommendation columns
F8	Platform / Infrastructure Unavailability	Tavro platform outage; LLM API (claude-sonnet) quota exhausted or provider outage; network outage	Low	Medium	MEDIUM	Agent health check failures; no risk assessments generated for active transformer roster; scheduled run missed
F9	Regulatory Non-Compliance (EU AI Act)	Lack of audit logging; absence of human oversight records; model decisions untraceable; no conformity assessment documentation	Medium	High	HIGH	Audit log gaps; ARE reviews not conducted; no documented human review of high-risk recommendations

3. Business Impact Analysis (BIA)

3.1 Operational and Financial Impact

Impact Category	Description	Financial / Regulatory Exposure
Missed or Delayed Maintenance	Without predictive risk scores, maintenance teams revert to time-based scheduling. High-risk transformers may be missed until physical symptoms appear.	Unplanned outage costs captured in downtime_cost field. Emergency repair costs significantly exceed planned maintenance costs.
Increased Transformer Failure Risk	Absence of DGA and condition monitoring synthesis increases probability of catastrophic failure events (thermal runaway, insulation breakdown, oil fire).	Transformer replacement costs \$50K–\$3M+ depending on rating. Extended outage duration costs captured as outage_duration_hours * grid revenue loss.
Safety Implications	Undetected partial discharge, abnormal gas levels, or overloading can result in arc flash events, explosions, or fires — endangering field technicians and the public.	OSHA/regulatory penalties; worker compensation; reputational damage; potential criminal liability if negligence is demonstrated.
Regulatory / Compliance Exposure	EU AI Act Article 6 designates this as a High-Risk AI system operating in critical infrastructure. Failure to maintain audit trails, human oversight records, and model traceability constitutes non-compliance.	EU AI Act penalties up to EUR 30M or 6% of global annual turnover. NERC CIP / utility regulatory fines where applicable.
SAP PM Data Integrity	Unreliable risk scores written to SAP PM corrupt the maintenance planning priority queue, potentially causing maintenance effort to be directed at low-risk assets while high-risk transformers are deferred.	Cascading effect on maintenance budget allocation; SAP PM reporting integrity compromised for regulatory submissions.

3.2 Recovery Time and Point Objectives

Failure Scenario	RTO	RPO	Justification
SCADA Feed Loss (F1)	4 hours	1 hour	Real-time data loss within 1 hour creates risk blind spots. 4-hour RTO aligns with SCADA SLA expectations in utility environments.
DGA Data Gap (F2)	24 hours	24 hours	DGA is typically sampled on a periodic basis (daily to weekly). A 24-hour recovery window is acceptable given this cadence.
Historical Data / Schema Failure (F3)	8 hours	0 (no data loss – restore from backup)	Schema failures corrupt model inference. 8-hour RTO with immediate rollback to last known-good schema state.

Model / LLM Degradation (F4)	4 hours	N/A – switch to prior model version	Prompt engineering or model rollback resolves most cases. 4-hour window prevents significant period of unreliable outputs.
SAP PM Write Failure (F5)	2 hours	1 hour	SAP PM is Mission Critical (Emergency Tier 1). Work order creation delays > 2 hours require manual intervention escalation.
Fabricated Output / Hallucination (F6)	Immediate suspension	Roll back to last validated batch	Any confirmed fabrication requires immediate agent suspension pending root cause analysis. Zero tolerance.
Platform Unavailability (F8)	8 hours	4 hours	Platform-level outages require infrastructure response. 8-hour RTO covers most cloud SLA recovery windows.

3.3 Critical Business Processes Affected

Business Process	Criticality	Agent Dependency	Impact if Agent Fails
Transformer Predictive Maintenance Planning	Critical	Direct	Reverts to time-based or reactive maintenance
SAP PM Work Order Generation	Mission Critical	Direct (CMMS write)	Manual work order creation required
Regulatory Reporting & Compliance (PROC_4)	Tier 3 Operational	Indirect (data quality)	Risk scores and maintenance records may be unreliable for regulatory submissions
Transformer Risk Monitoring / Asset Management	High	Direct	No automated risk stratification of transformer fleet
Field Technician Dispatch Prioritization	High	Indirect (via SAP PM)	Resource allocation sub-optimal; safety risk increases

4. Business Continuity Plan (BCP)

4A. Immediate Response Actions

4A.1 Incident Detection and Alerting

The following automated and manual detection mechanisms must be operational:

- Monitoring dashboard alert triggered when agent produces no output for a scheduled run cycle
- Alert when risk_score column in Transformer Outages table is not updated within the expected processing window
- SAP PM integration health check: alert if no work orders created for transformers with prior alert_status = 'Active' within 2 hours
- Data pipeline health check: alert on null values exceeding 10% across critical input fields (DGA, winding_temperature, oil_moisture_level)
- LLM API response monitoring: alert on HTTP 5xx errors, timeout rates > 5%, or response latency > 30 seconds
- Prompt output validation: automated check that output conforms to defined JSON/structured schema

4A.2 Escalation Paths

Severity	Trigger	Escalation Path	Notify Within	Owner
P1 – Critical	Agent suspended (F6: fabricated output) or SAP PM write failure > 2 hrs	IT Ops → Data Science Lead → SAP PM Functional Lead → Business Owner (Sunil Soares)	15 minutes	IT Operations
P2 – High	SCADA feed loss > 1 hr; DGA data missing; model output anomaly detected	Data Engineering → AI/ML Ops → SAP PM Functional Team	30 minutes	Data Engineering
P3 – Medium	Platform unavailability; partial data gaps; scheduled run missed once	AI/ML Ops → Data Engineering	1 hour	AI/ML Operations
P4 – Low	Performance degradation; minor output format issues; non-critical field nulls	AI/ML Ops (ticket)	4 hours	AI/ML Operations

4A.3 Temporary Containment Measures

- Immediately flag affected transformer risk_score records in SAP PM with status 'AGENT_UNAVAILABLE' to prevent stale scores from driving incorrect prioritization
- Freeze automated work order generation from agent output; route all new work orders through manual maintenance planner review
- Post incident status to maintenance team communication channel within 30 minutes of P1/P2 detection
- If fabricated outputs confirmed (F6): quarantine all agent outputs produced in the preceding 48 hours and initiate manual review
- Engage SAP PM Functional Lead to temporarily disable automated writeback from CMMS Integration Tool until agent is validated

4B. Workarounds and Fallback Procedures

4B.1 Manual Maintenance Planning Process

In the event of agent failure, maintenance planning reverts to a structured manual protocol:

- Retrieve the last validated transformer risk scores from the Transformer Outages table (most recent agent output with confirmed alert_status = 'Valid')
- Maintenance Planner to review all transformers with last known risk_score of 1 or 2 (Critical/High Risk) and confirm inspection schedules in SAP PM manually
- For transformers with no valid score in the past 7 days, apply conservative default: treat as Risk Score 2 (High) until agent is restored
- Maintenance Supervisor conducting daily manual review of open SAP PM work orders during agent downtime, cross-referencing against SCADA dashboard

4B.2 Rule-Based Threshold Fallback Logic

A static rule-based decision matrix must be pre-configured as a fallback in SAP PM characteristics/classification:

Condition	Threshold	Fallback Action	SAP PM Priority
Winding Temperature	> 105°C (ONAN rating)	Immediate inspection work order	Very High – 24 hrs
Load Percentage	> 110% rated capacity	Load shedding notification + inspection	Very High – 24 hrs
DGA – Acetylene	> 35 ppm (IEC 60599)	De-energize and inspect	Critical – Immediate
Oil Moisture	> 20 ppm	Oil treatment / replacement work order	High – 48 hrs
Last Maintenance Date	> 12 months overdue	Schedule preventive maintenance	Medium – 5 days
Insulation Resistance	< 100 MΩ	Insulation testing + engineer review	High – 48 hrs

4B.3 Historical Data and Static Model Fallback

- Use the 30-year historical Transformer Outages dataset to identify transformers of the same model, manufacturer, and age that have historically failed — apply their failure profile as a risk proxy
- Remaining Useful Life (remaining_useful_life_days) field in the Transformer Outages table provides a static estimate that does not require the agent — use this for conservative scheduling during downtime
- Maintenance Planners may reference historical root_cause and failure_type columns to identify transformers sharing characteristics with past failures

4B.4 Backup Systems

- IBM Maximo (if available as an alternate CMMS): can serve as a secondary work order management system if SAP PM integration is the point of failure
- SCADA historian: raw SCADA data can be exported directly by field engineers for manual DGA and thermal review if the integration tool fails
- Manual DGA lab reports: lab-generated PDF DGA reports should be made available to Maintenance Planner as a direct fallback for the DGA Diagnostic Tool

4C. Recovery Procedures

4C.1 Data Pipeline Restoration

- Step 1: Identify the failed pipeline component (SCADA integration, DGA tool, ETL to Transformer Outages table) via monitoring logs
- Step 2: Restore the affected integration using the last validated configuration. If SCADA feed: restart integration service and confirm heartbeat. If Transformer Outages schema changed: roll back to prior schema version from backup
- Step 3: Reprocess missing data for the affected window by replaying raw sensor data from SCADA historian or re-ingesting DGA lab results
- Step 4: Validate data completeness: confirm all critical columns (winding_temperature, dga, oil_moisture_level, insulation_resistance) are populated for all active transformers

4C.2 Model Rollback or Retraining

- If LLM provider updated underlying model: pin agent to specific model version (claude-sonnet-4-20250514) and test outputs against a regression dataset of known transformer cases
- If prompt degradation: restore prior validated prompt template from version control and re-run regression tests
- If systematic bias detected: suspend agent, run diagnostic batch on 50 historical transformers with known outcomes, compare predicted vs. actual risk scores
- If retraining is required (data drift): engage Data Science team to retrain on updated 30-year + new data. Minimum 2-week process; interim fallback rules apply throughout

4C.3 Integration Revalidation

- SAP PM CMMS Integration: execute end-to-end test by creating a synthetic transformer record, running it through the agent, and confirming work order creation in SAP PM test client
- SCADA Integration: verify live feed by confirming current sensor readings match physical SCADA dashboard values for 5 sample transformers
- DGA Diagnostic Tool: submit a reference DGA sample with known fault signature and confirm the tool returns the expected gas classification

4C.4 Validation and Testing Before Reactivation

A formal reactivation gate must be passed before the agent is returned to production:

Validation Test	Pass Criteria	Approver
Regression batch: 20 historical transformer cases	Risk scores within ± 0.5 of baseline for 18/20 cases	Data Science Lead
Output schema validation	All output fields populated; no null risk_score or recommendation	AI/ML Operations
SAP PM write-back test	Work order created for 3 simulated high-risk transformer cases	SAP PM Functional Lead
Audit trail verification	All agent runs logged with input hash, output, timestamp, and version	Risk & Compliance
Human oversight sign-off	Business Owner (Sunil Soares) reviews and approves reinstatement	Business Owner

4D. Communication Plan

4D.1 Stakeholder Notification Matrix

Stakeholder	Role	Notify For	Timeline	Channel
Sunil Soares	Agent Owner / Business Owner	P1, P2	15–30 min	Phone + Email
SAP PM Functional Lead	SAP PM Operations	P1, P2, F5	30 min	Email + Slack
Maintenance Supervisor	Field Operations	P1, P2	30 min	Slack + Briefing
Data Engineering Team	Pipeline Restoration	F1, F2, F3	30 min	Slack + Incident ticket
AI/ML Operations	Model & Platform Recovery	F4, F7, F8	30 min	Slack + Incident ticket
Risk & Compliance Officer	Regulatory Exposure	F6, F9; P1	1 hour	Email
IT Leadership / CTO	Executive Awareness	P1 > 4 hrs unresolved	2 hours	Email + Exec brief
Field Technicians	Maintenance Execution	Fallback activation	1 hour	Supervisor briefing

4D.2 Communication Timeline and Status Reporting

Time from Detection	Communication Action	Content	Owner
T+0 to T+15 min	Incident declared; initial alert sent	Failure mode, affected transformers, initial severity, containment steps initiated	IT Operations / AI/ML Ops
T+30 min	Stakeholder status update	Root cause hypothesis, fallback procedures activated, estimated recovery time	Incident Manager
T+2 hrs	Progress update	Recovery status, transformers under manual monitoring, revised ETA	Incident Manager
T+Recovery	Recovery confirmed; reactivation gate passed	Validation test results, agent reinstated, backlog of deferred assessments processed	AI/ML Ops + Business Owner
T+5 business days	Post-incident review	Root cause analysis, lessons learned, remediation actions logged in governance register	Risk & Compliance

5. Remediation and Preventive Controls

5.1 Monitoring and Observability Improvements

Control	Description	Priority	Owner
Real-time output schema validation	Automated validator checks every agent response conforms to required output template before writing to SAP PM	P1 – Critical	AI/ML Ops
Risk score distribution monitoring	Alert if >80% of risk scores in a batch are identical (indicating frozen or biased output)	P1 – Critical	AI/ML Ops
Data pipeline freshness SLA	SLA: SCADA data < 1 hour old; DGA data < 24 hours old. Automated alert on breach.	P1 – Critical	Data Engineering
LLM API health monitoring	Heartbeat check every 5 minutes; alert on latency > 15s or error rate > 2%	P2 – High	IT Operations
SAP PM write-back confirmation	Confirm each recommended work order appears in SAP PM within 5 minutes of agent output	P2 – High	SAP PM Lead
Agent run audit log	Log every execution: input hash, model version, output, timestamp. Retain for 3 years for EU AI Act compliance.	P1 – Critical	Risk & Compliance

5.2 Data Validation and Redundancy

- Implement a secondary data validation layer in the ETL pipeline that flags records with >3 critical fields null before they are ingested by the agent
- Maintain a 72-hour rolling backup of the Transformer Outages table to enable point-in-time recovery following schema corruption (F3)
- Establish a data contract between the agent and each upstream data source (SCADA, DGA, CMMS) with defined schemas, refresh frequencies, and SLA breach alerts
- Archive and version all historical transformer records to ensure the 30-year dataset is recoverable without loss following database incidents

5.3 Model Performance and Drift Detection

- Establish a baseline risk score distribution from a validated historical batch (e.g., known 2020–2025 transformer outcomes). Alert when current distribution deviates by > 15% using KL-divergence or equivalent statistical test
- Monthly ground-truth comparison: compare agent risk predictions against actual maintenance events and outage records from the prior month. Track precision and recall on Risk Score 1–2 predictions
- Pin LLM model version in agent configuration and require formal change approval before upgrading (claude-sonnet-4-20250514 as current baseline)

- Implement adversarial input testing quarterly: inject known-bad maintenance_notes strings to verify the agent correctly refuses to fabricate data

5.4 Automated Failover Mechanisms

- Auto-suspend agent and activate fallback threshold rules (Section 4B.2) when output validation fails for 3 consecutive runs
- SAP PM failsafe: if agent-generated work order queue is empty for > 4 hours during operational hours, auto-route an alert to the Maintenance Supervisor
- Implement circuit breaker pattern on SCADA and DGA integrations: after 3 consecutive failed polls, switch to cached last-known-good values and alert data engineering

5.5 Governance Controls

Governance Control	Description	Frequency	Owner
Agentic Risk Exposure (ARE) Review	Formal review of TAVAGR risk assessment against current agent configuration, integrations, and business context	Quarterly	Risk & Compliance
EU AI Act Conformity Assessment	Document human oversight mechanisms, audit trail completeness, and accuracy metrics as required for Article 6 High-Risk AI systems	Annually	Risk & Compliance
BCP Review and Test	Conduct tabletop exercise simulating agent failure to validate fallback procedures and communication plan	Semi-Annual	IT Operations
Audit Trail Review	Verify that all agent executions are logged with required fields; sample 10% of records for completeness	Monthly	AI/ML Ops
SLA Definition and Review	Formalize SLAs for RTO/RPO targets defined in Section 3.2; review and update based on operational experience	Annually	Business Owner
Autonomy Level Monitoring	Verify autonomy_level remains 0.0 in agent configuration; alert on any change	Weekly automated	AI/ML Ops
Change Management Gate	Any change to agent instructions, model version, data source schema, or tool configuration requires formal approval from Business Owner and Risk & Compliance before deployment	Per change	IT Governance

6. Assumptions and Gaps

6.1 Assumptions

- The Transformer Predictive Monitoring agent is currently in a Sandbox environment. This BCP is designed to be applicable both during sandbox validation and upon promotion to production.
- Autonomy level is confirmed at 0.0 (no autonomous action). If this changes, this BCP must be revised to reflect expanded failure impact scenarios.
- The 30-year historical Transformer Outages dataset is the primary inference substrate; data quality, completeness, and absence of survivorship bias are assumed but unverified.
- SAP Plant Maintenance is confirmed as Mission Critical / Emergency Tier 1 in the enterprise architecture registry.
- The agent's designated regulatory classification under EU AI Act Article 6 is confirmed based on critical infrastructure (electricity supply) designation.
- The claude-sonnet-4-20250514 model is the current LLM baseline. Provider-level changes are outside the control of the agent owner.
- Maintenance teams have sufficient skills and documented procedures to execute manual fallback protocols without agent assistance.

6.2 Identified Gaps Requiring Resolution

Gap	Risk if Unresolved	Recommended Action
No formal SLA documented for SCADA integration uptime or DGA data refresh frequency	RTO/RPO targets undefined for upstream systems; BCP timelines based on assumptions	Formalise upstream SLAs with integration owners
Agent has no formal knowledge source / RAG documentation linked	Agent reasoning basis is opaque; audit trail limited to input/output	Document reasoning model and link to domain knowledge base
AIVSS score of 2.5 reflects gaps in Memory Use, Dynamic Tool Use, and Contextual Awareness metadata (scored 1.0 due to 'no explicit information')	Actual risk posture may differ from scored posture; gaps inflate uncertainty	Document agent's memory policy and tool invocation logic explicitly in Tavro registry
No guardrail configuration documented (name, description, model all null)	No automated safety net preventing fabricated or out-of-range outputs from reaching SAP PM	Implement and register output guardrail (e.g., range validation on risk_score; template enforcement)
No backup or secondary agent registered for failover	Single point of failure in predictive maintenance capability	Register a simplified rule-based fallback agent in Tavro as a hot standby
Regulation / framework field is null in agent registry	EU AI Act and NERC CIP requirements not formally linked to agent record	Register applicable regulatory frameworks against TAVAC0004370 in Tavro
AI use case identifier is null — no formal Use Case record linked to agent	Governance anchor missing; agent lacks formal business approval chain	Create a formal Tavro AI Use Case record and link to TAVAC0004370

Appendix A: Agent Registry Summary

Attribute	Value
Agent ID	TAVAC0004370
Agent Name	Transformer Predictive Monitoring
Risk Assessment ID	TAVAGR0003761 (assessed 2026-03-09)
Owner	Sunil Soares
Blended Risk Score	3.4 / 10 – Medium
AIVSS Score	2.5 / 10 – Low (low autonomy, no self-modification)
Regulatory Risk	7 / 10 – HIGH RISK (EU AI Act Art. 6 – Critical Infrastructure)
Integrated Application	SAP Plant Maintenance – Business Criticality: High – Emergency Tier: Mission Critical
Business Process	Regulatory Reporting and Compliance (PROC_4) – Tier 3 Operational
Tools	CMMS Integration Tool; SCADA / Real-Time Sensor Data Integration Tool; DGA Diagnostic Tool
Primary Data Table	Transformer Outages (30-year historical dataset, 38 columns)
Autonomy Level	0.0 (human-in-the-loop; no autonomous action)
PII / PHI / PCI	None – data is operational/technical only
LLM Model	claude-sonnet-4-20250514 (Anthropic)