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# INSIS ALARM MANAGEMENT SYSTEM

SMART ALERTS FOR INDUSTRIAL SAFETY

inSis suite

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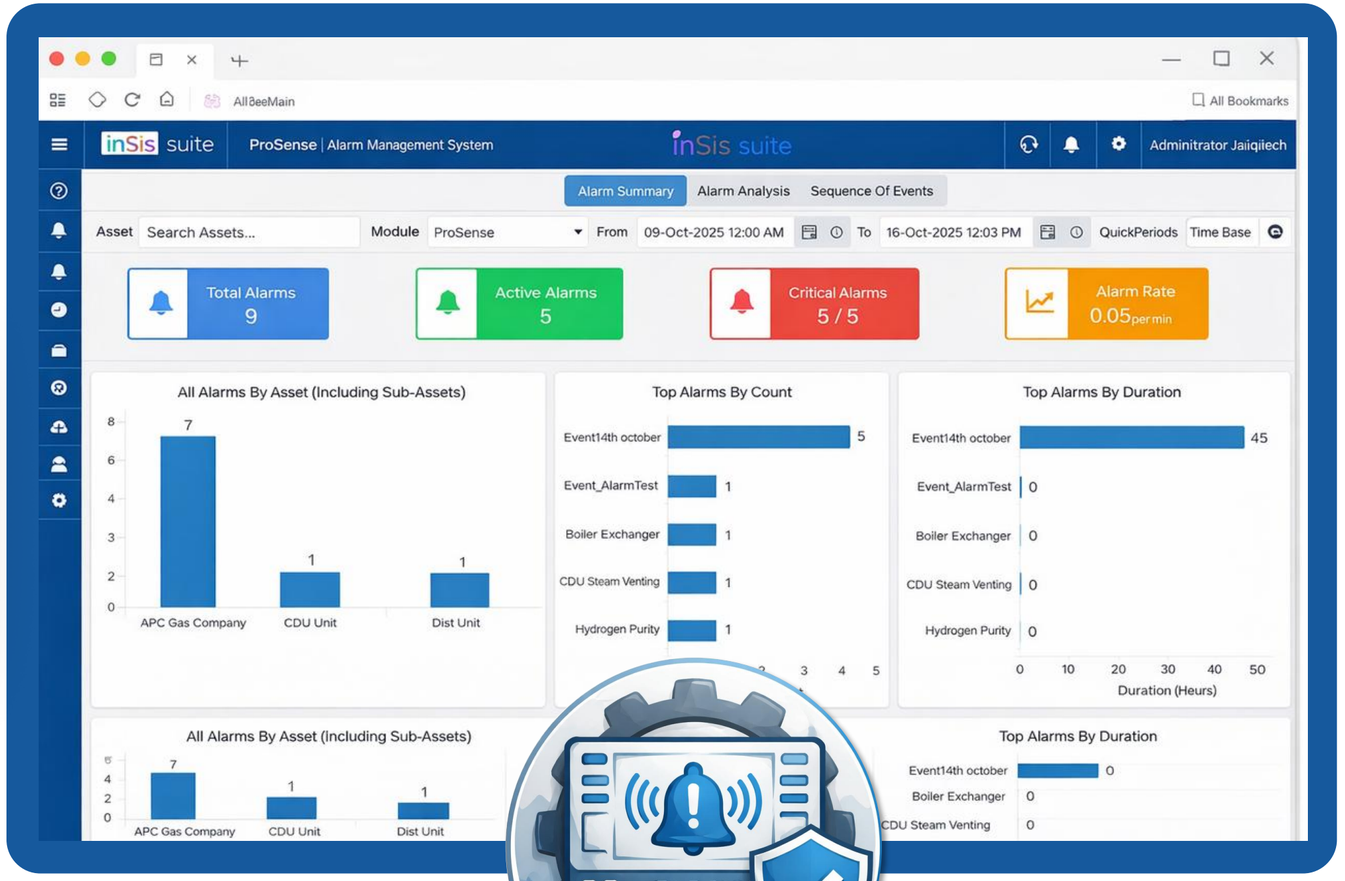
# SOLUTION OVERVIEW

An Alarm Management System (AMS) collects, stores , analyzers the alarms from multiple industrial processes control systems. It helps to minimize  This ensures improved safety, reduced downtime, and reliable operations.





- **Improves operational safety**
- **Faster, data-driven decision-making with real-time insights**
- **Minimized downtime and reduced operational risks**
- **Supports compliance and better decision-making**

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# KEY FEATURES

- Collect, Store and Present alarms from multiple systems in one place
- Real-time alarm monitoring with advanced analytics
- Automated reports & interactive dashboards
- Sequence of Events (SOE) tracking
- Alarm Escalations & Notifications
- Reconditioning SOPs for improved operational discipline

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## How Alarm Management Works

The inSis Alarm Management System provides a structured approach to monitoring, prioritizing, rationalizing and responding to alarms with clear ownership and timely notifications.

With defined SOPs, task assignments, and escalation workflows, it ensures consistent alarm handling and faster issue resolution across the organization.


# ALARM PERFORMANCE & ANALYTICS

**Alarm Rate**
Monitor the rate of alarm occurrences

**Setpoint Change Tracking**
Track changes to setpoints and alarm limits

**Acknowledgement Time**
Measure acknowledgement & clearance time

**Deviation Mapping**
Map alarms to process deviations

**Trend Comparison**
Analyze trends before and after rationalization

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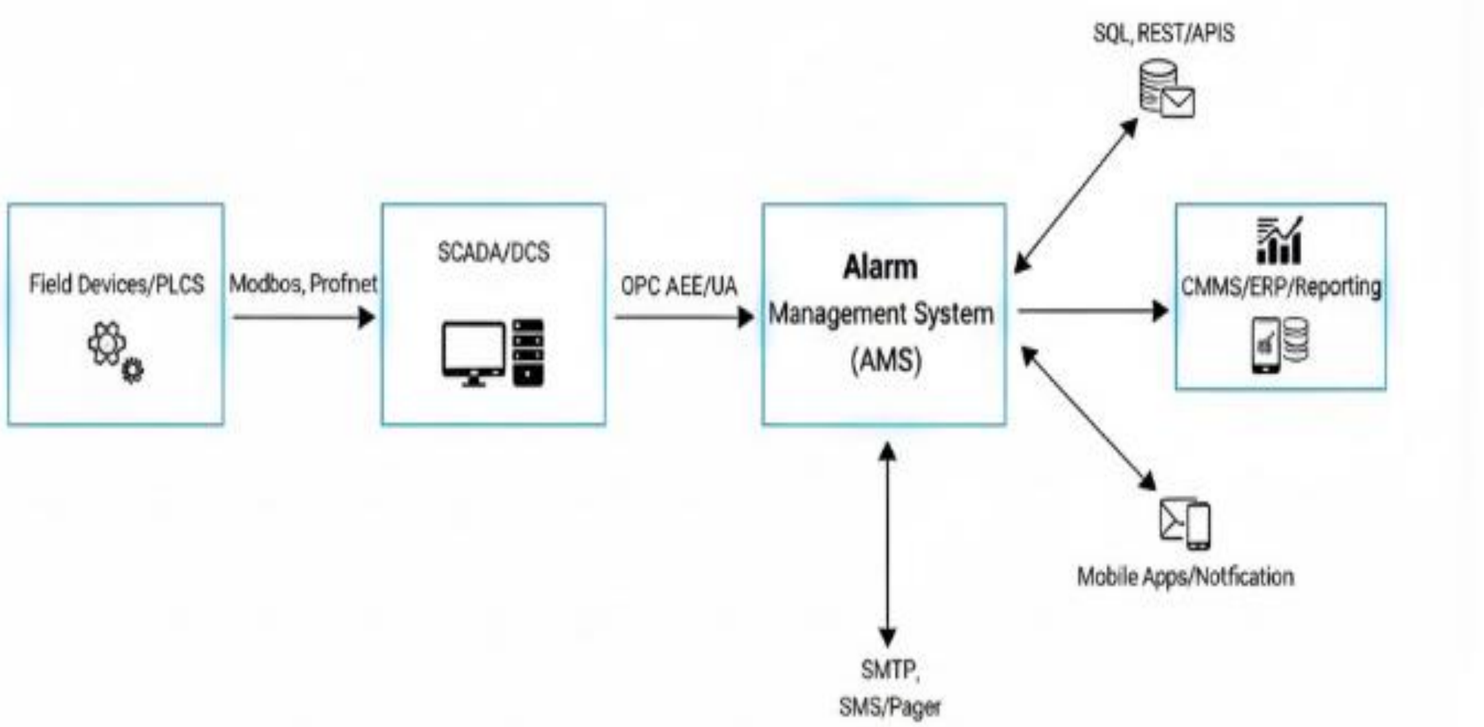
# CONTROL SYSTEM INTEGRATION PROTOCOLS

- OPC-DA, OPC-AE, OPC-UA
- Ethernet / TCP-IP Communication
- ODBC, SQL, File-based Interfaces
- Web API

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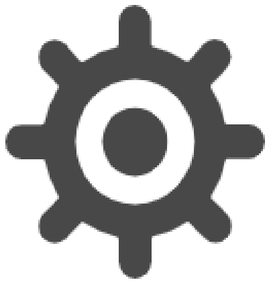
# MAJOR BENEFITS

### Enhanced Safety

Focused visibility on critical alarms reduces risk of incidents.



### Improved Reliability

Continuous monitoring and alarm rationalization minimize downtime.

### Operator Effectiveness

Clear prioritization and contextual insights support faster decisions.

### Performance Tracking

Benchmarks alarm health through KPIs and intelligent reports.

### Global Compliance

Adherence to EEMUA 191, ISA 18.2, and IEC / BS 62682.

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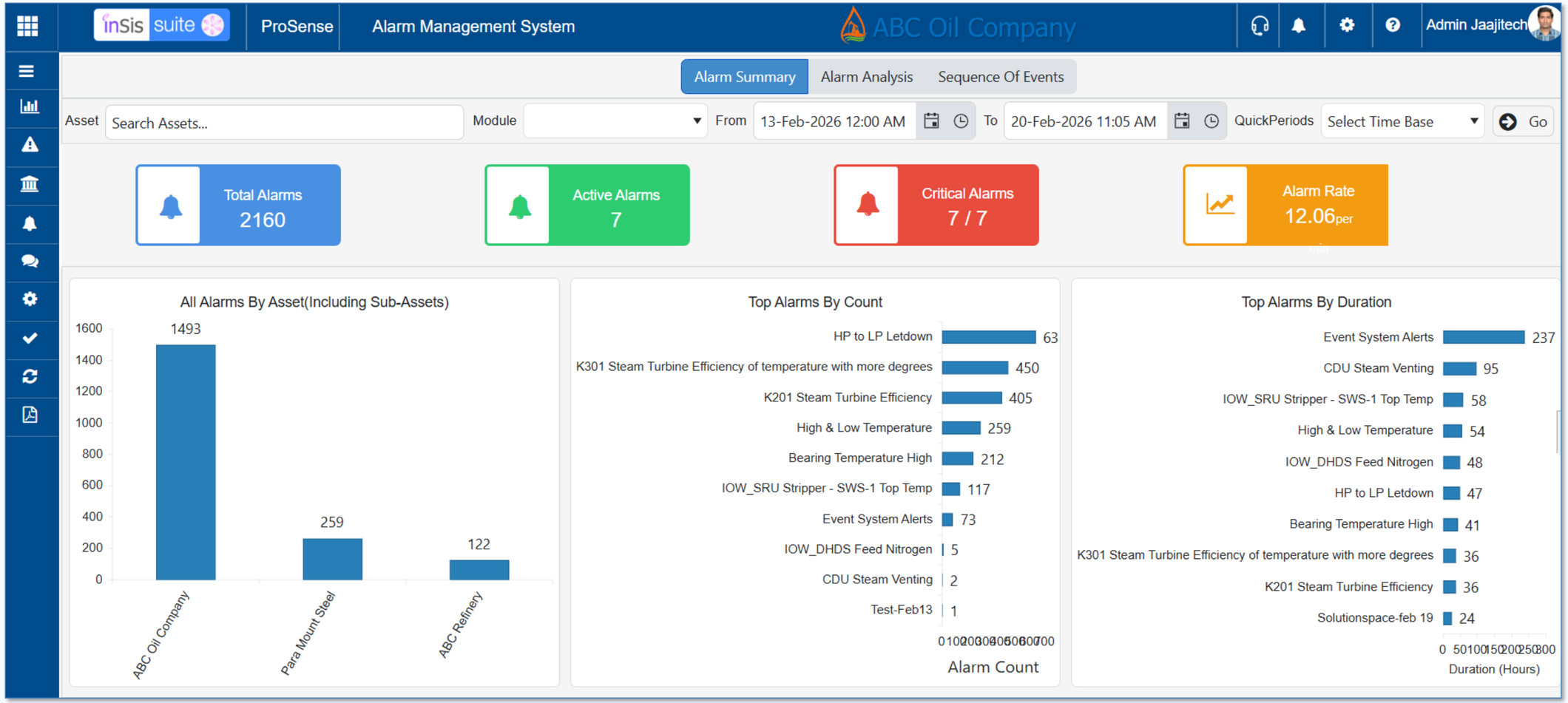
# Alarm Summary Dashboard

The Alarm Summary Dashboard provides a real-time overview of all alarms generated in the plant or system. It helps operators and engineers monitor, analyze, and respond to alarms efficiently.

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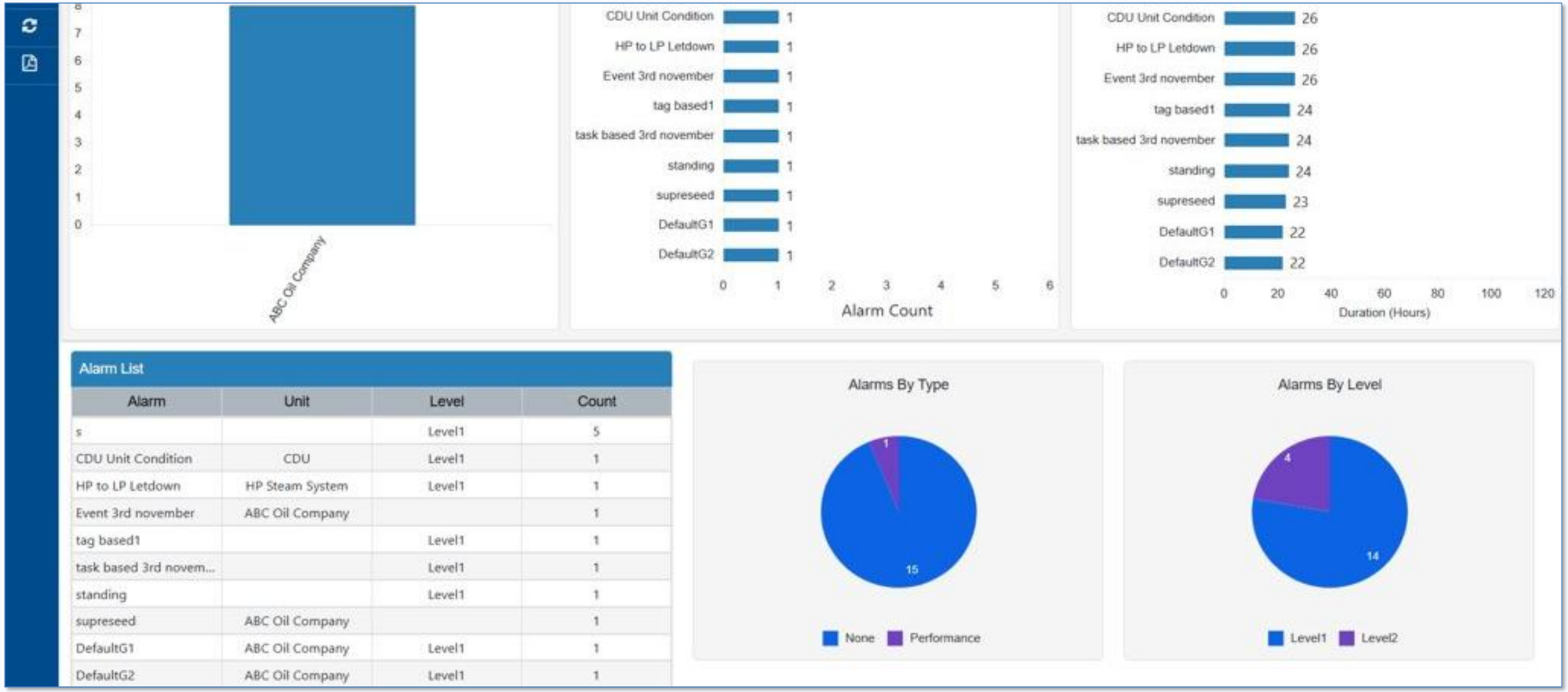
# Alarm Summary Dashboard

This dashboard gives the overall status of alarms within the selected time period.Shows total alarms, active alarms, acknowledged alarms etc.Helps users quickly understand current plant alarm load and how many alarms are currently activated.

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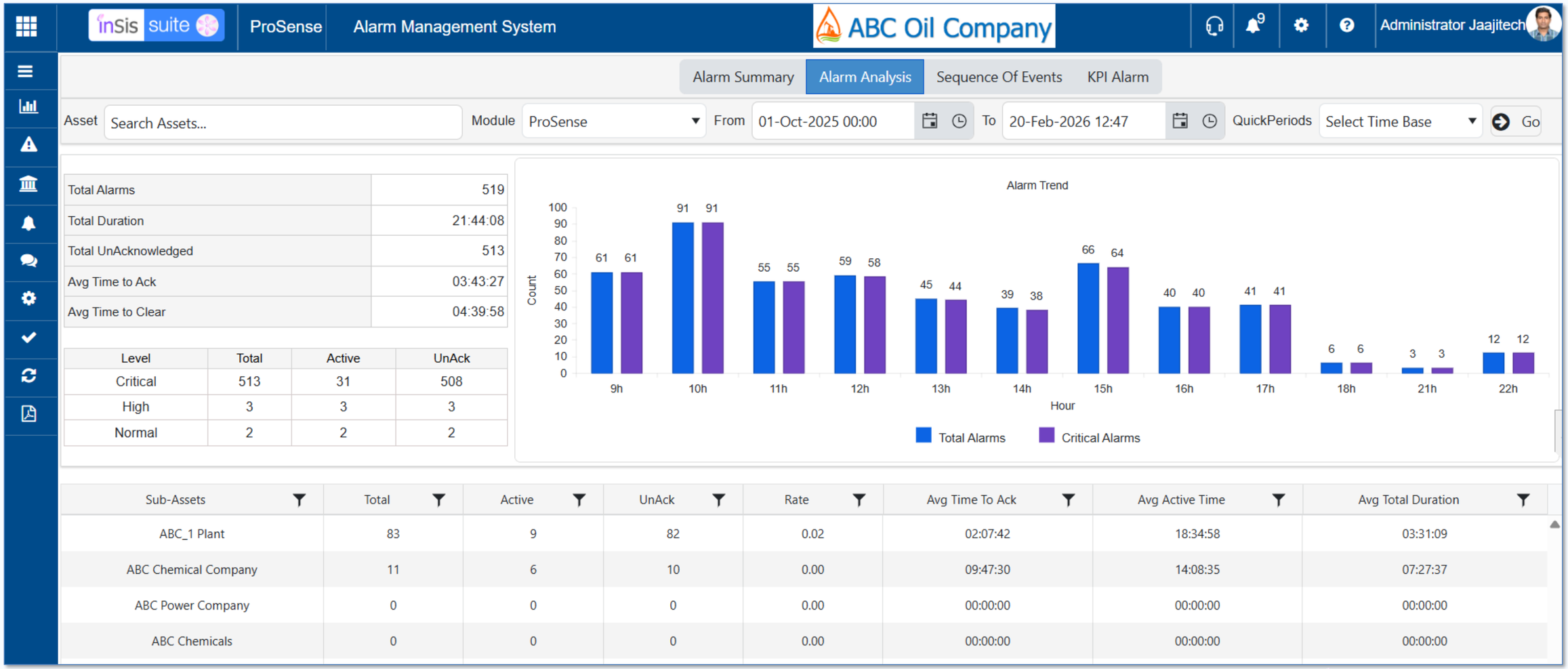
# Alarm Analysis Dashboard

The Alarm Analysis Dashboard provides a detailed evaluation of alarm performance and operator response. It helps identify alarm patterns, frequency, and duration to improve alarm configuration and system reliability.

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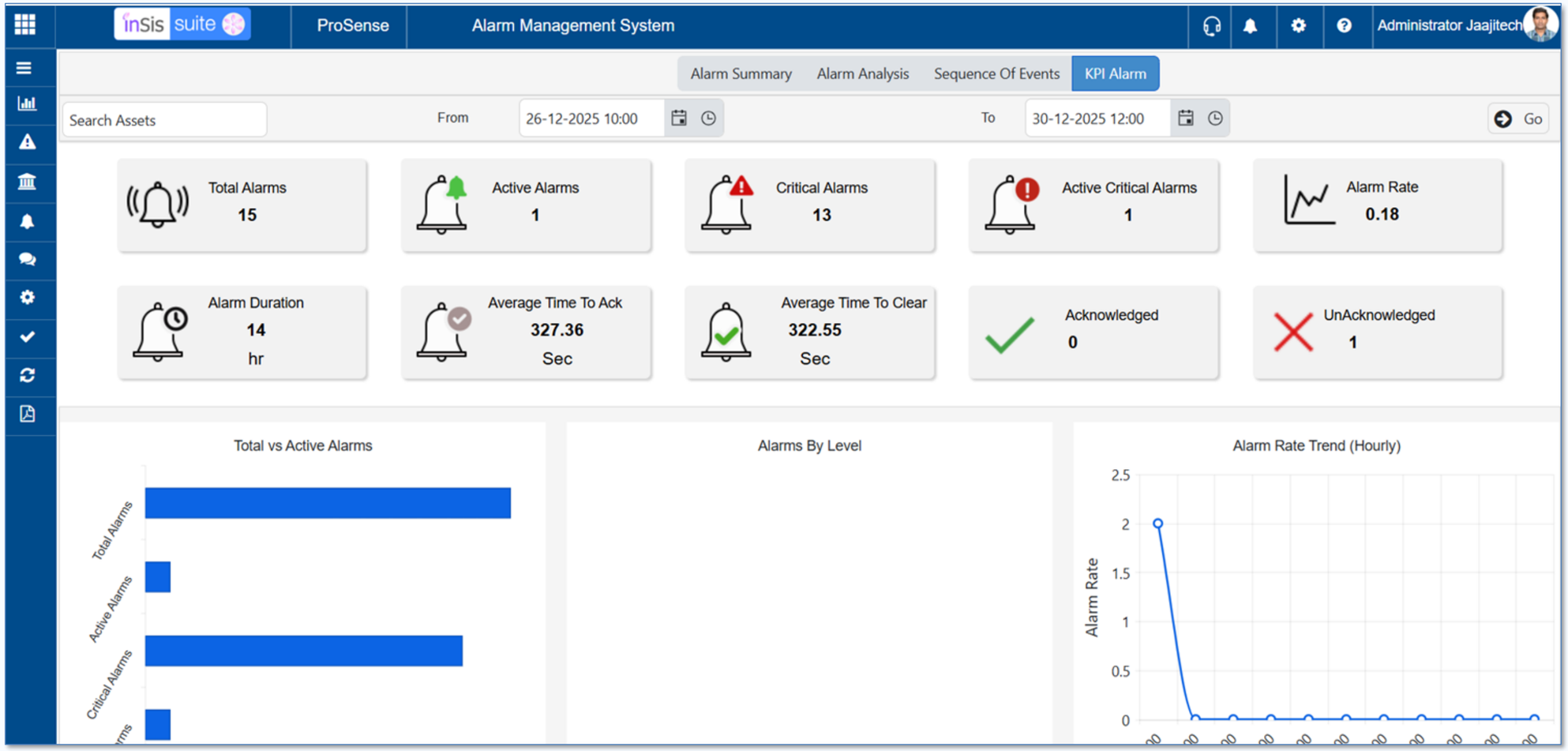
# KPI Alarm Dashboard

In the KPI Alarm Dashboard, users can view the total number of alarms within a selected time period and filter them based on assets. Alarms can also be viewed in multiple formats in KPI Alarm dashboard.

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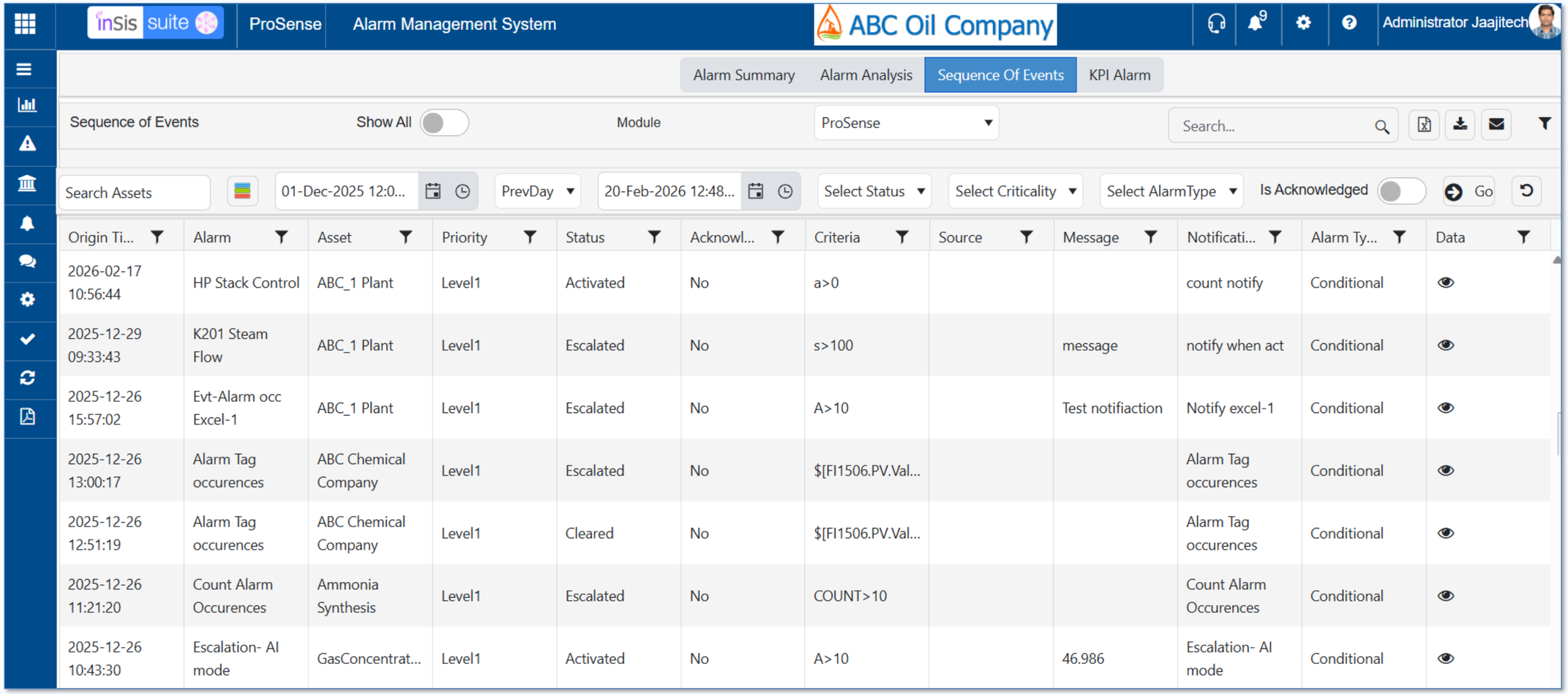
# Sequence of Events

The Sequence of Events (SOE) Dashboard offers a comprehensive timeline of all alarms and system activities. It enables operators and engineers to trace the precise order and timing of events, supporting quicker identification and analysis of incidents and process abnormalities.




| Origin Ti... | Alarm | Asset | Priority | Status | Acknowl... | Criteria | Source | Message | Notificati... | Alarm Ty... | Data |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2026-02-17 10:56:44 | HP Stack Control | ABC_1 Plant | Level1 | Activated | No | a>0 | | | count notify | Conditional | |
| 2025-12-29 09:33:43 | K201 Steam Flow | ABC_1 Plant | Level1 | Escalated | No | s>100 | | message | notify when act | Conditional | |
| 2025-12-26 15:57:02 | Evt-Alarm occ Excel-1 | ABC_1 Plant | Level1 | Escalated | No | A>10 | | Test notifiaction | Notify excel-1 | Conditional | |
| 2025-12-26 13:00:17 | Alarm Tag occurences | ABC Chemical Company | Level1 | Escalated | No | $[FI1506.PV.Val... | | | Alarm Tag occurences | Conditional | |
| 2025-12-26 12:51:19 | Alarm Tag occurences | ABC Chemical Company | Level1 | Cleared | No | $[FI1506.PV.Val... | | | Alarm Tag occurences | Conditional | |
| 2025-12-26 11:21:20 | Count Alarm Occurences | Ammonia Synthesis | Level1 | Escalated | No | COUNT>10 | | | Count Alarm Occurences | Conditional | |
| 2025-12-26 10:43:30 | Escalation- AI mode | GasConcentrat... | Level1 | Activated | No | A>10 | | 46.986 | Escalation- AI mode | Conditional | |

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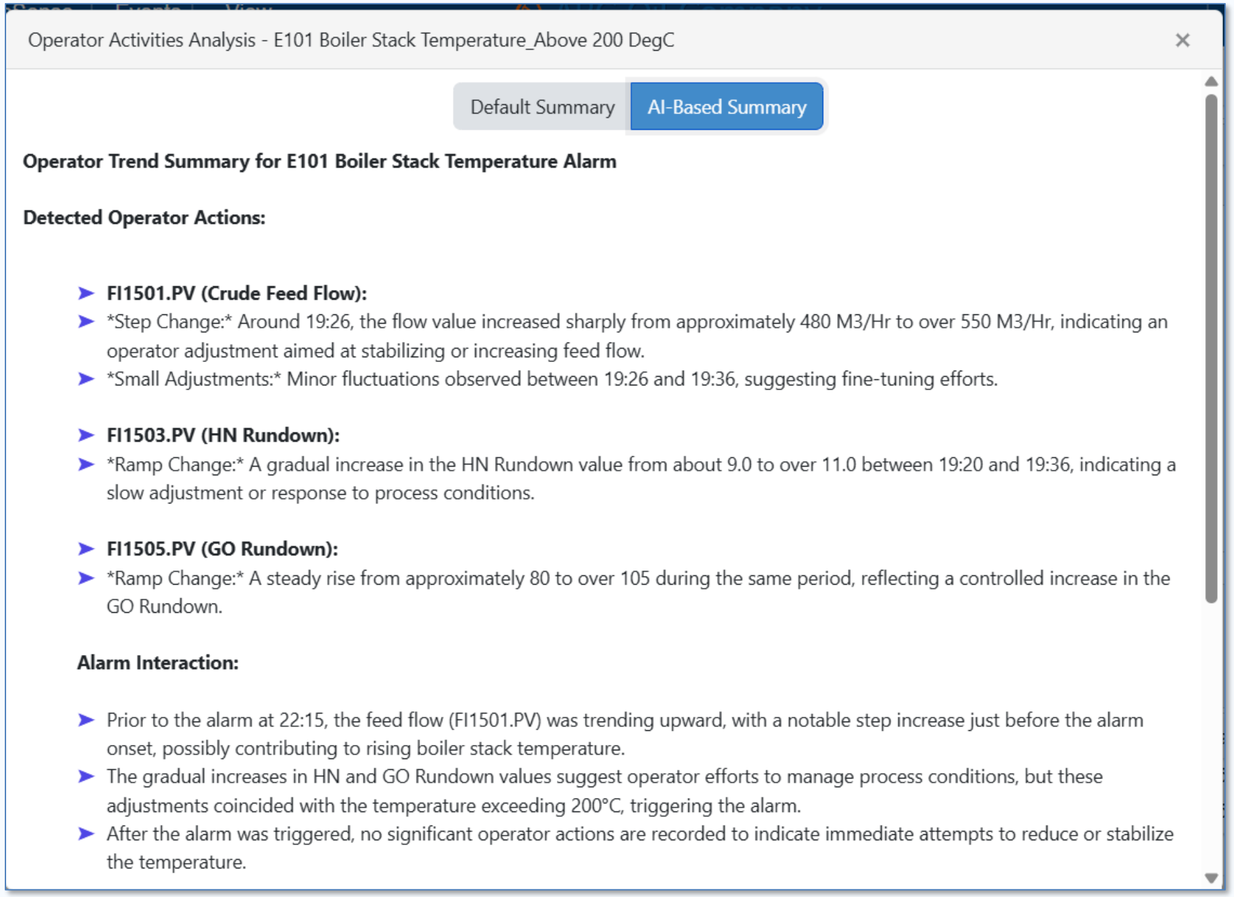
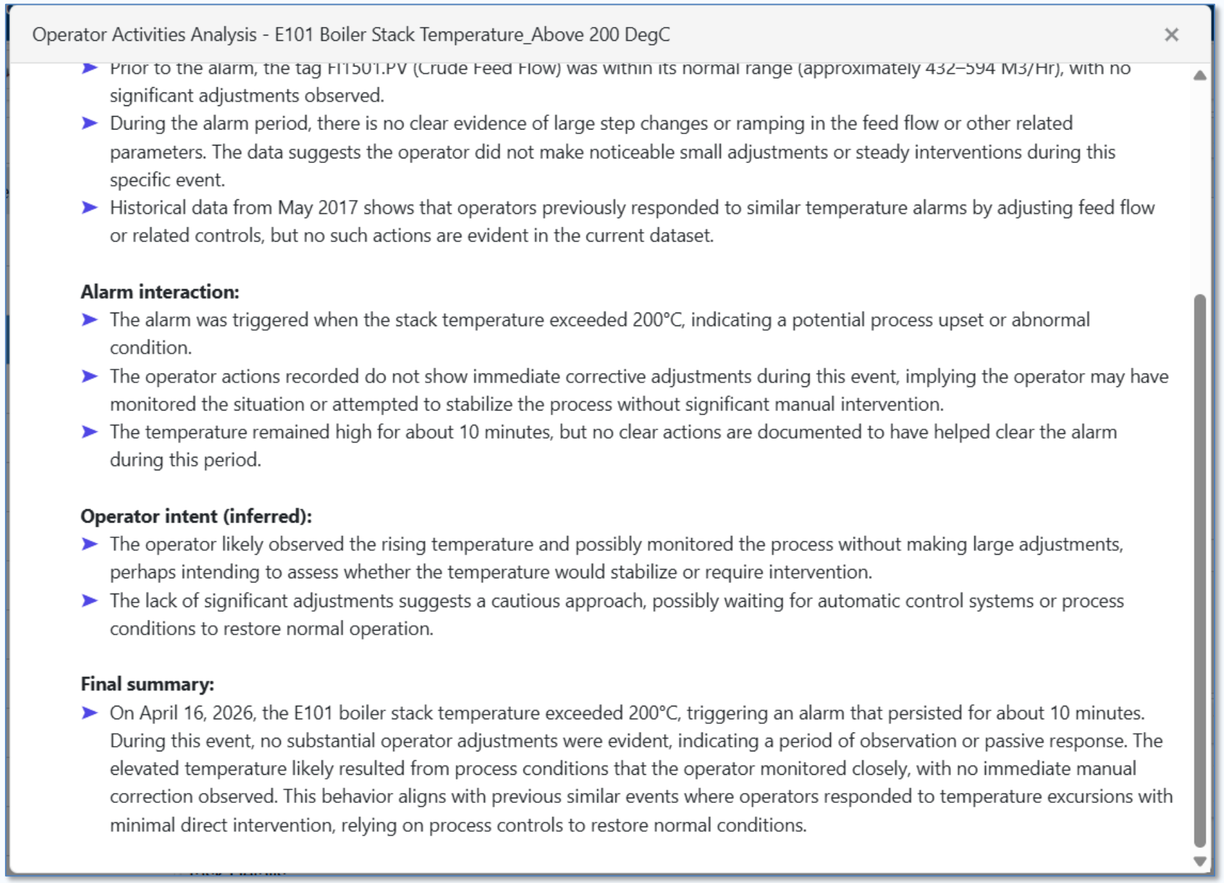
# Generative AI based RCA & Prescription

The system analyzes the operator actions and associated alarms and provides AI-based alarm summary which caused the Alarm, what follows and how this alarm can be addressed.

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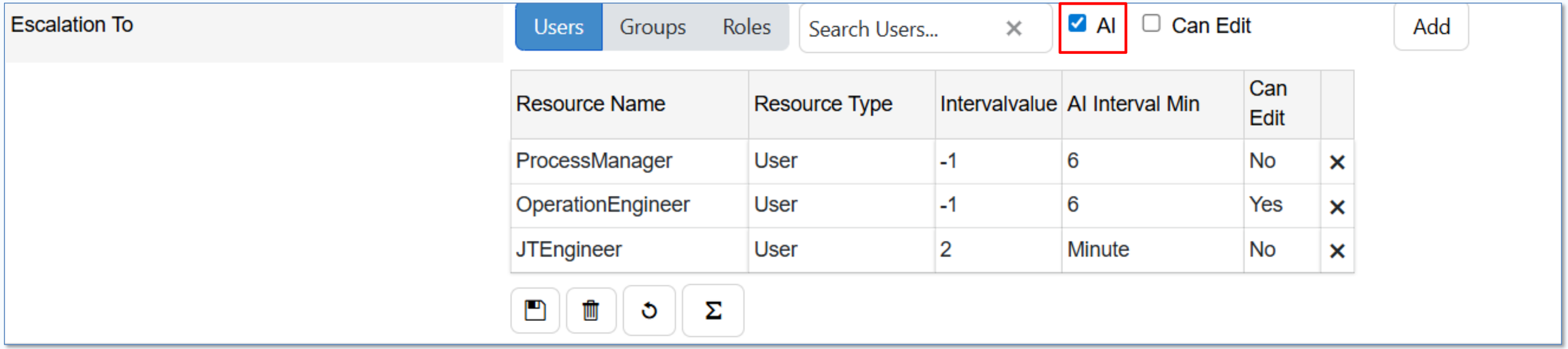
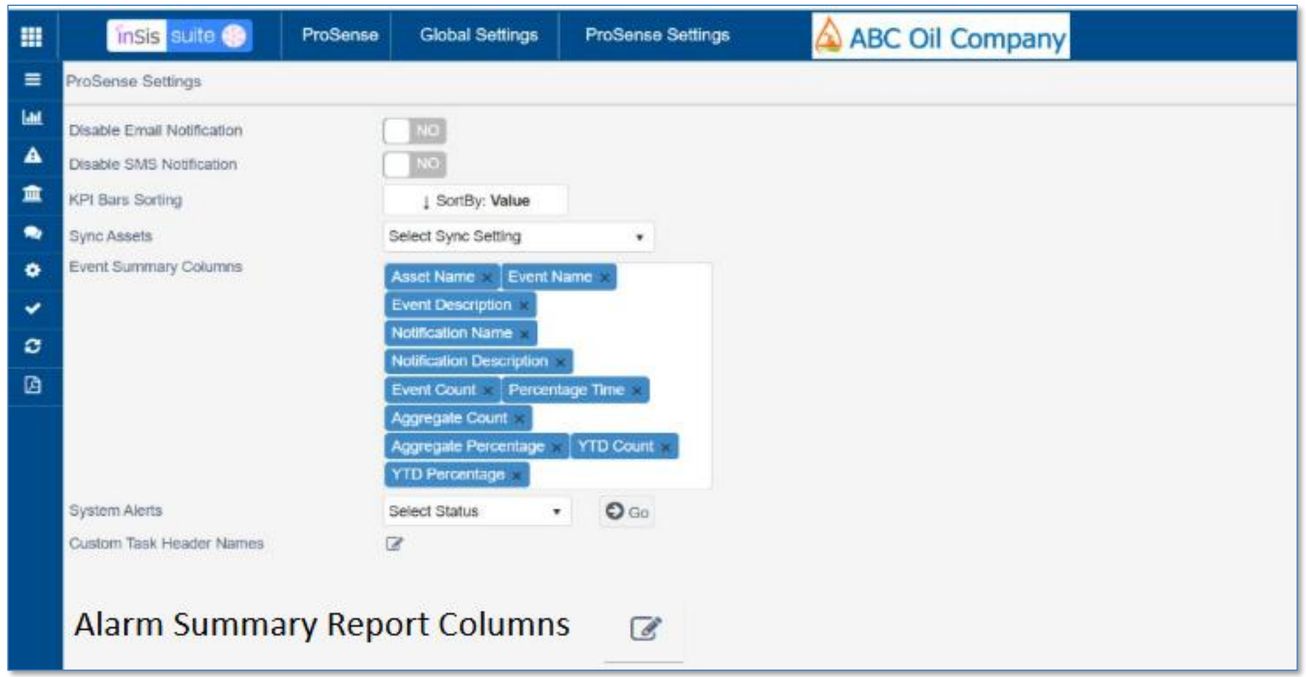
# Auto Escalation with AI

In the Escalation settings, users can now enable the AI feature for event escalation. The initial event must be cleared first. After selecting the AI option and adding users for the first escalation interval, the system automatically calculates the subsequent interval timings to escalate the event.



# AUTOMATED REPORTS

- Alarm Summary
- Alarm Frequency Report
- Alarm Rate
- Standing Alarms Report
- Top 10 / Top 20 Alarms Report
- Suppressed & Shelved Alarms
- Operator Response Time & Acknowledgement
- Chattering / Fleeting Alarms Detection
- Shift Performance & Benchmark Reports

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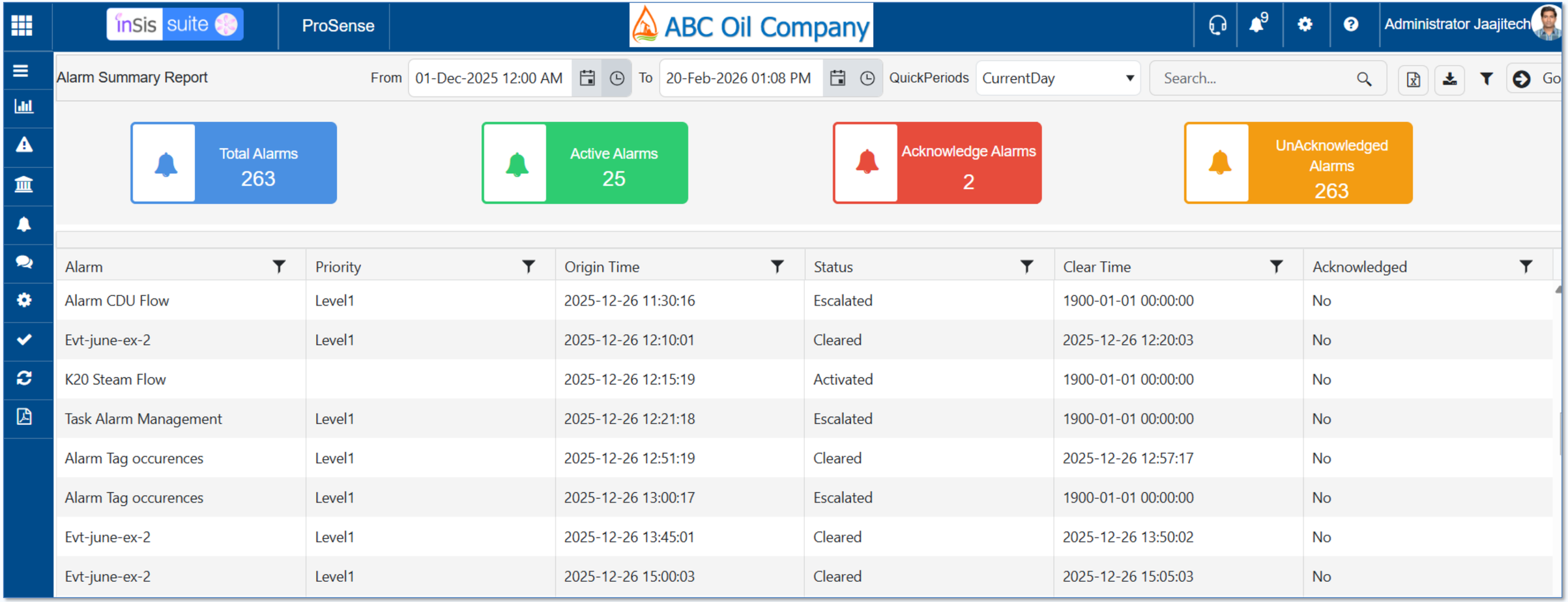
# ALARM SUMMARY REPORT

Displays all active, acknowledged, and unacknowledged alarms with details like asset, time, and status. Helps operators quickly monitor, prioritize, and manage alarms effectively.




| Alarm | Priority | Origin Time | Status | Clear Time | Acknowledged |
|---|---|---|---|---|---|
| Alarm CDU Flow | Level1 | 2025-12-26 11:30:16 | Escalated | 1900-01-01 00:00:00 | No |
| Evt-june-ex-2 | Level1 | 2025-12-26 12:10:01 | Cleared | 2025-12-26 12:20:03 | No |
| K20 Steam Flow | | 2025-12-26 12:15:19 | Activated | 1900-01-01 00:00:00 | No |
| Task Alarm Management | Level1 | 2025-12-26 12:21:18 | Escalated | 1900-01-01 00:00:00 | No |
| Alarm Tag occurences | Level1 | 2025-12-26 12:51:19 | Cleared | 2025-12-26 12:57:17 | No |
| Alarm Tag occurences | Level1 | 2025-12-26 13:00:17 | Escalated | 1900-01-01 00:00:00 | No |
| Evt-june-ex-2 | Level1 | 2025-12-26 13:45:01 | Cleared | 2025-12-26 13:50:02 | No |
| Evt-june-ex-2 | Level1 | 2025-12-26 15:00:03 | Cleared | 2025-12-26 15:05:03 | No |

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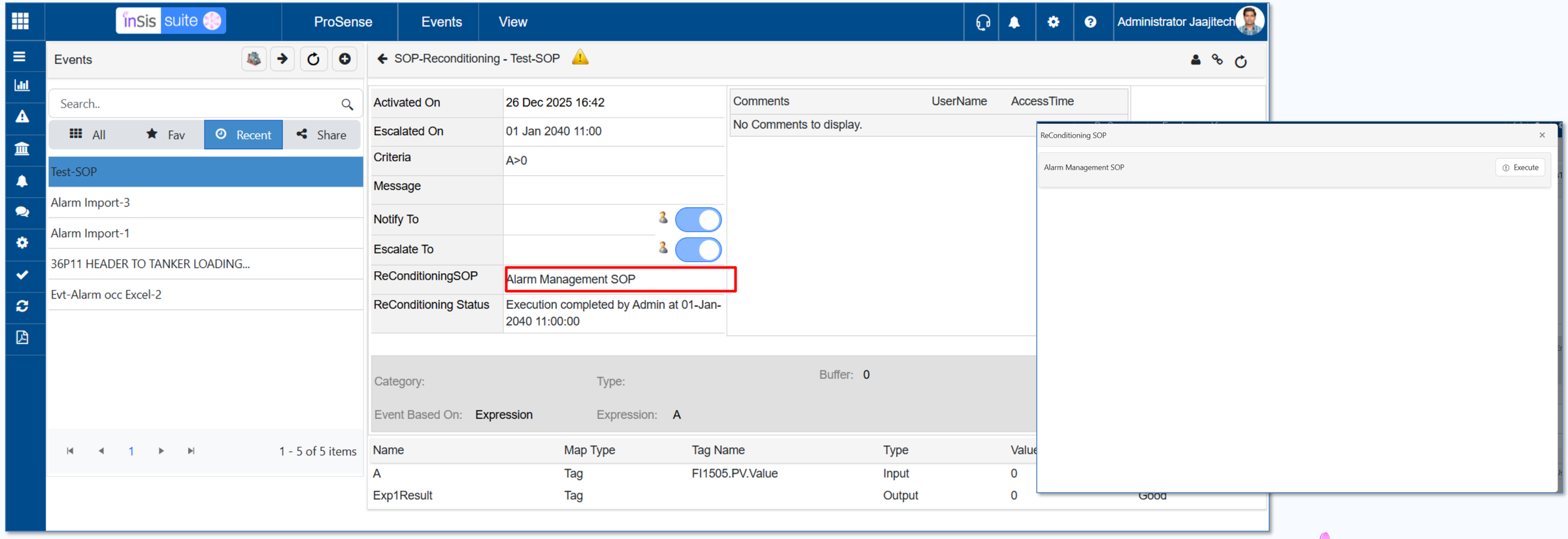
# RECONDITIONING SOP

users can map an SOP to the event. The mapped SOP can be executed directly from the Event Details page.  To enable this, the SOP must be mapped in the Event Notification Criteria settings.

In the Event Details view, users need to click on the **Reconditioning SOP** to execute it. After execution, the **Status** section will display the details of the user who executed the SOP along with the execution time.

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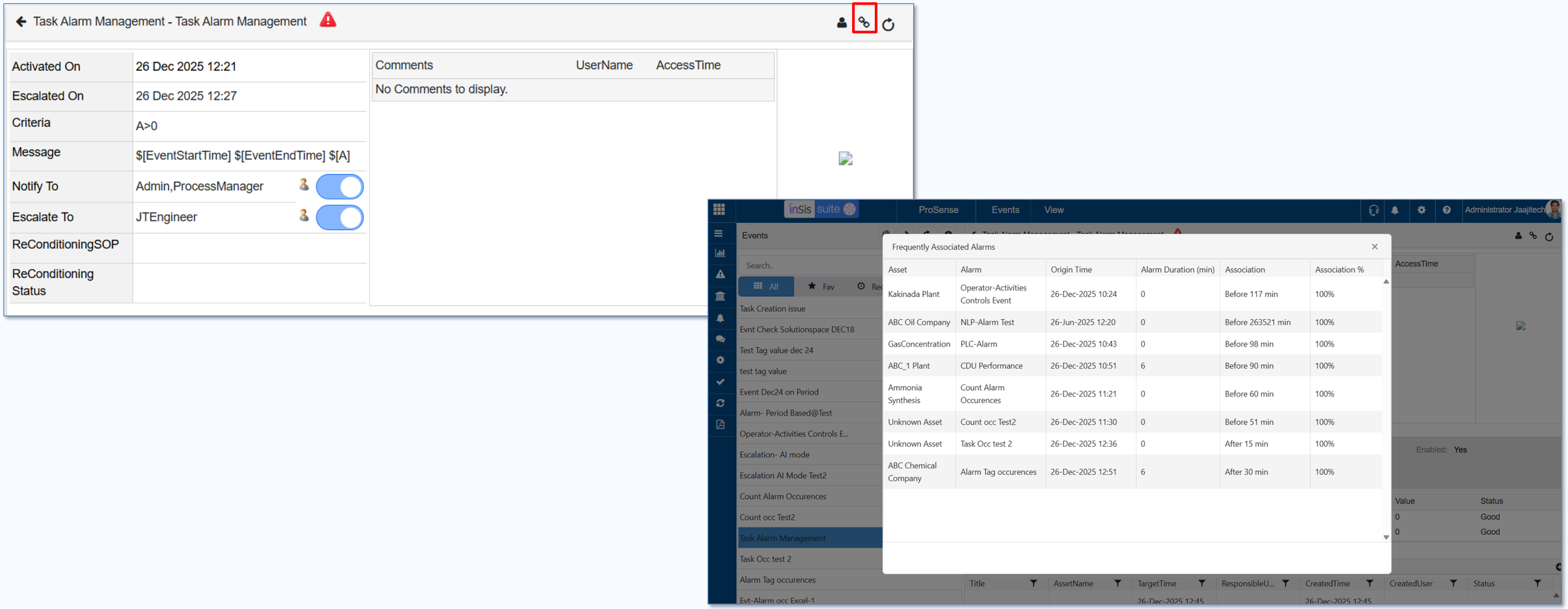
# FREQUENTLY ASSOCIATED EVENTS

In the Event Details view, users can easily track events that occur frequently at the same time. By clicking on **Frequently Associated Events**, users can view the details of events that are repeatedly triggered along with the current event.

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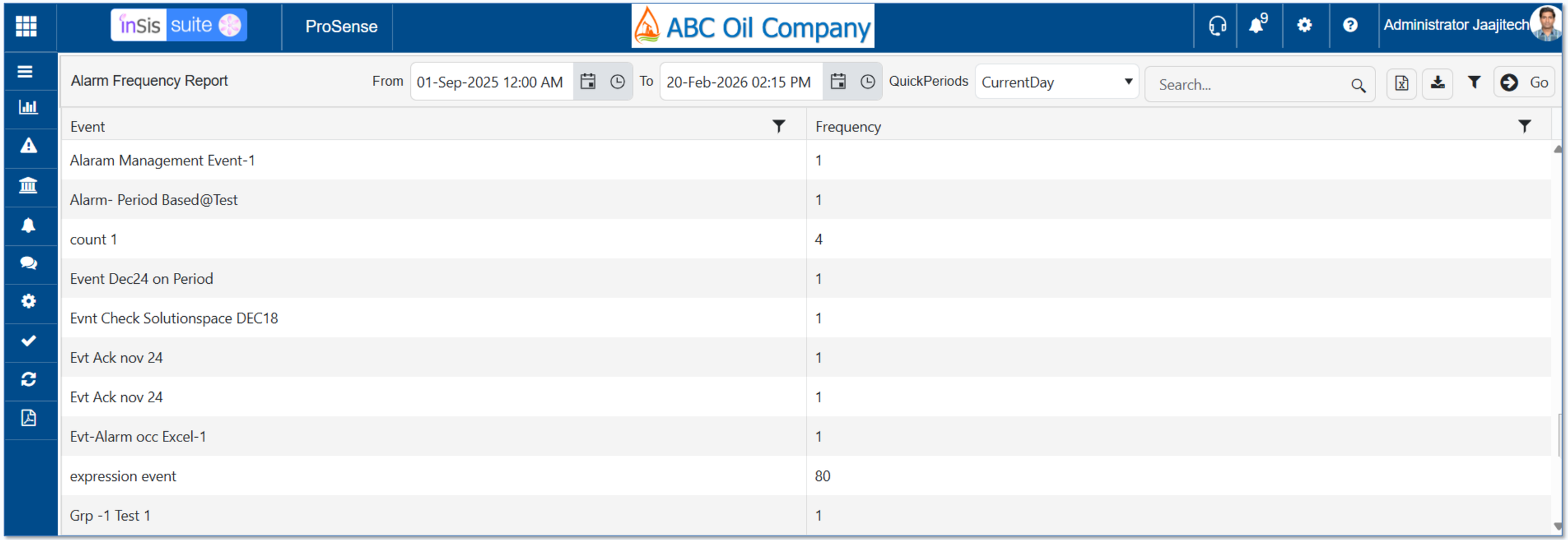
# ALARM FREQUENCY REPORT

Shows how often each alarm occurs within a selected period. Helps identify frequently repeating alarms so operators can focus on solving recurring issues and improve system reliability.

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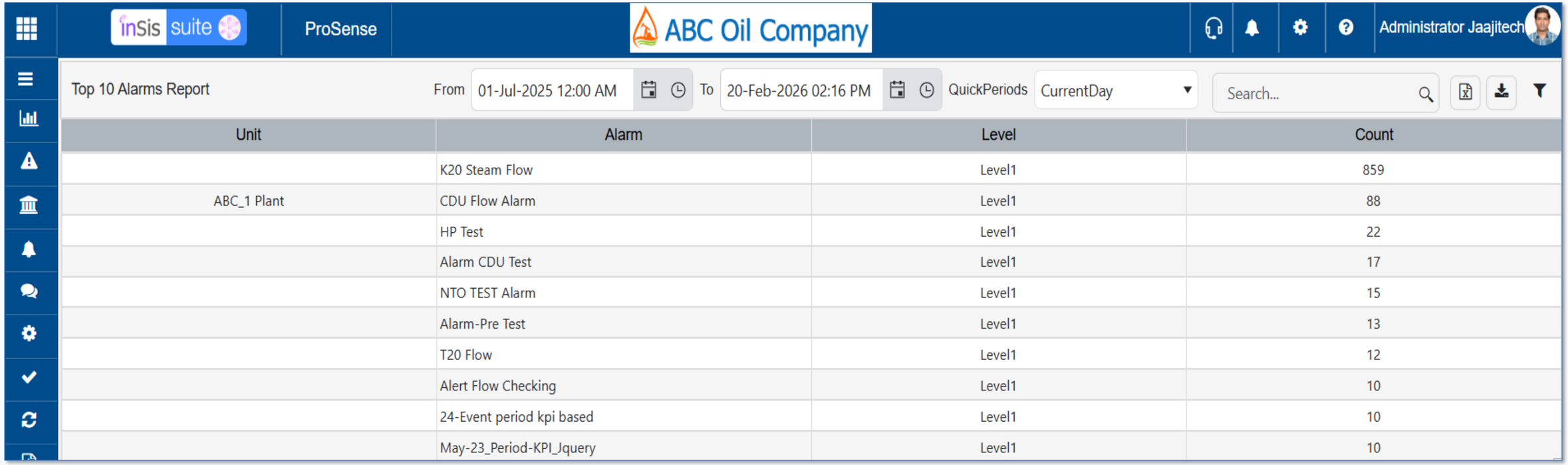
# TOP 10 ALARM  REPORT

Displays the ten most frequent alarms in the system. Helps operators focus on the most recurring issues to improve process stability.

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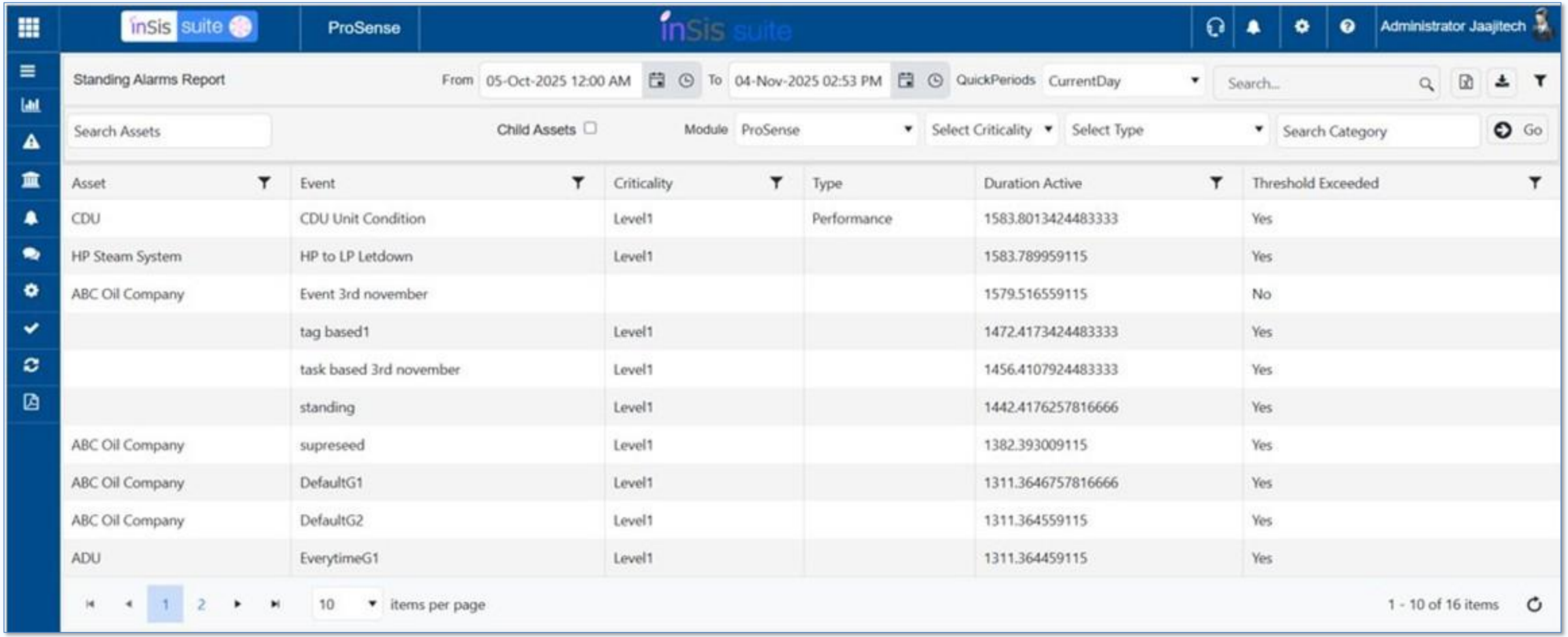
# STANDING ALARM REPORT

This report displays alarms that remain active for a long time without being cleared. It helps users Identify assets with alarms exceeding the allowed active duration and Monitor “Threshold Exceeded” status for quick attention.

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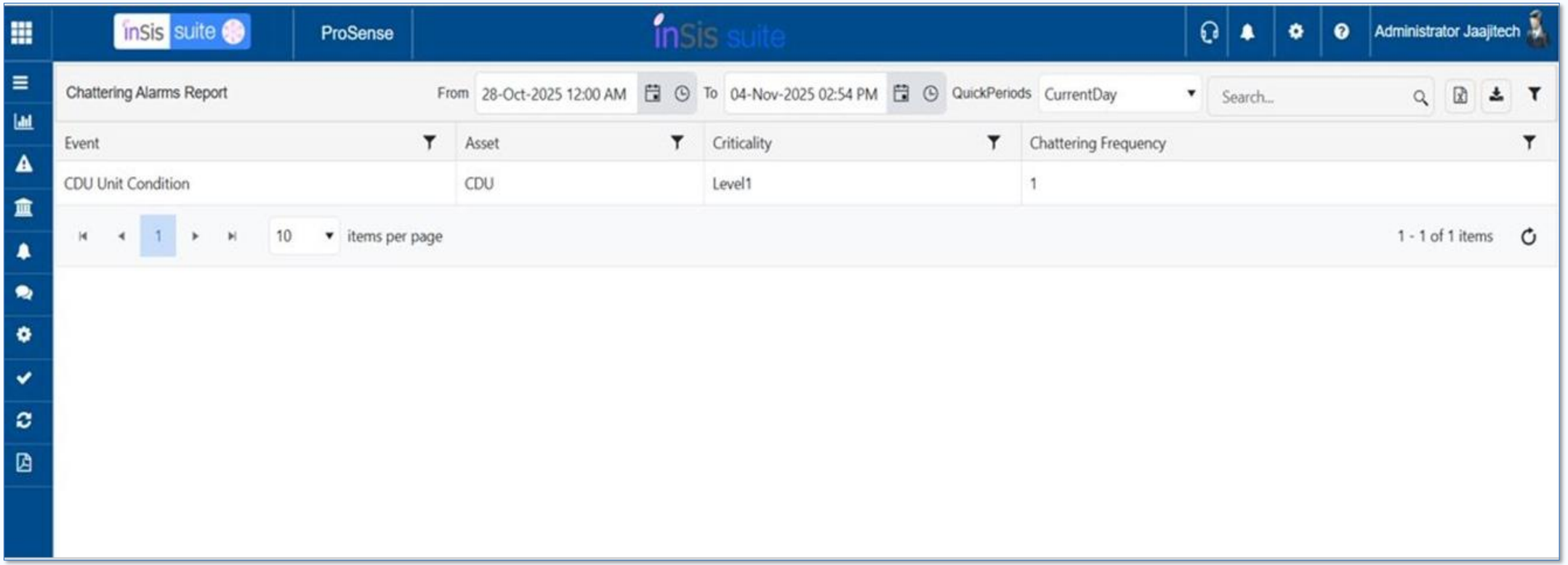
# CHATTERING ALARM REPORT

This report provides The Chattering (or Fleeting) Alarms Report is designed to detect alarms that activate and cleared within a short period.

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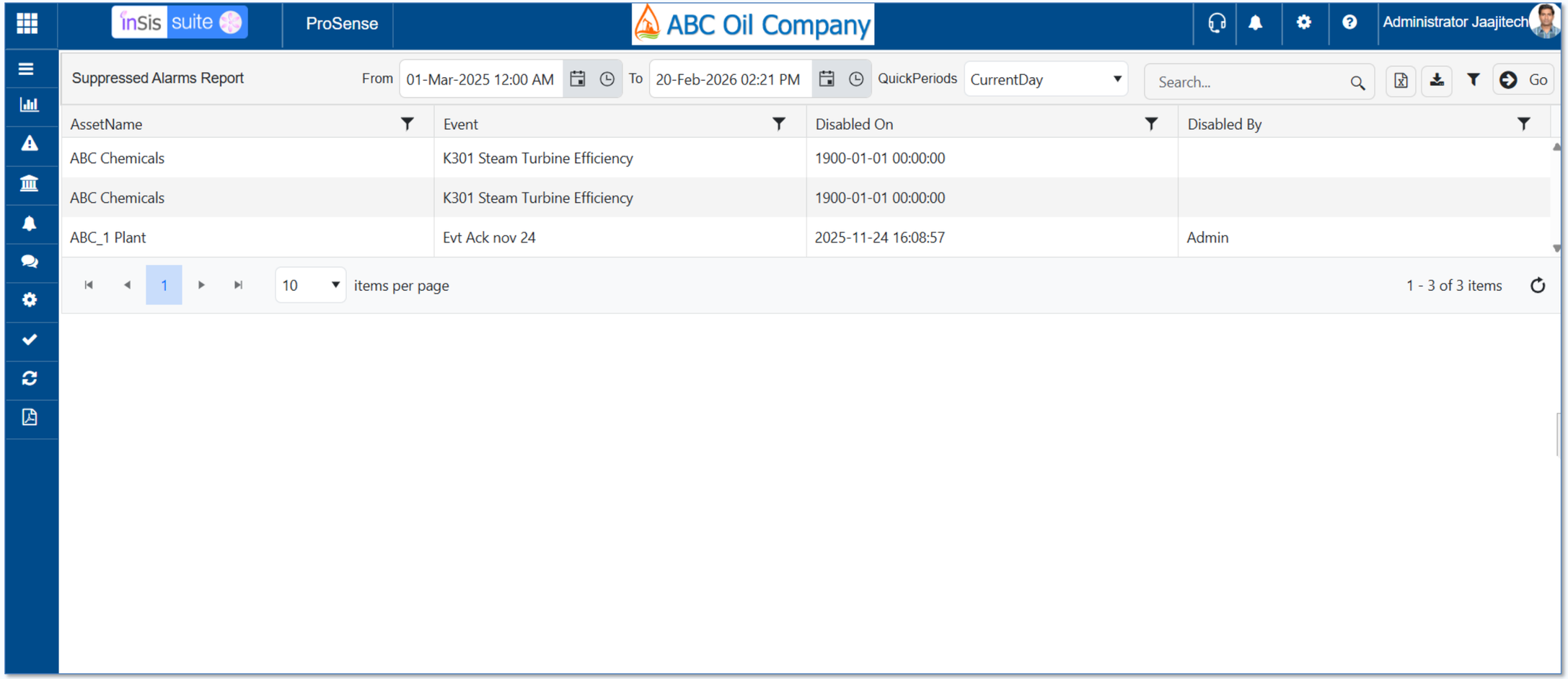
# SUPPRESSED ALARM REPORT

This Report identifies alarms that are **temporarily disabled** for a certain period.(that means notifications which are disabled )

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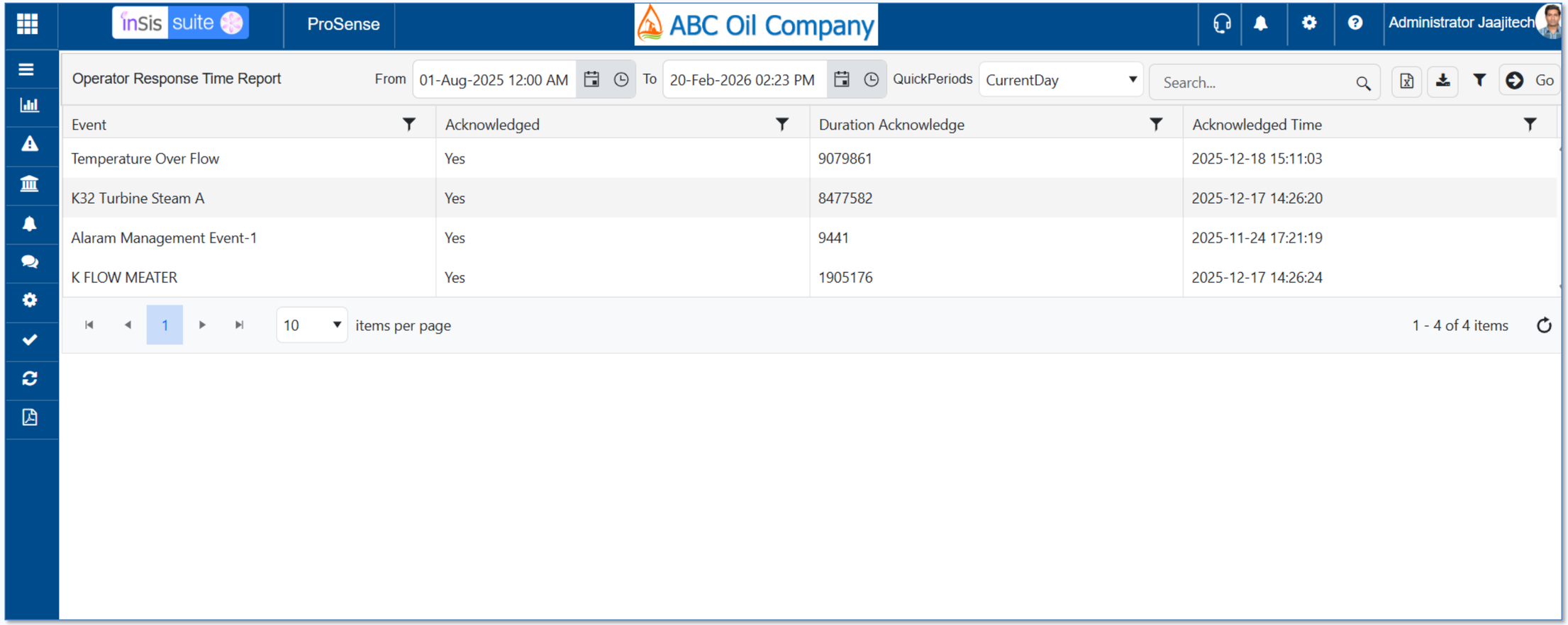
# OPERATOR RESPONSE ALARM REPORT

The Operator Response Time Report provides insights into how promptly operators respond to process alarms or abnormal events generated within the system. It helps evaluate the efficiency of operator actions and ensures timely acknowledgment of critical alerts.

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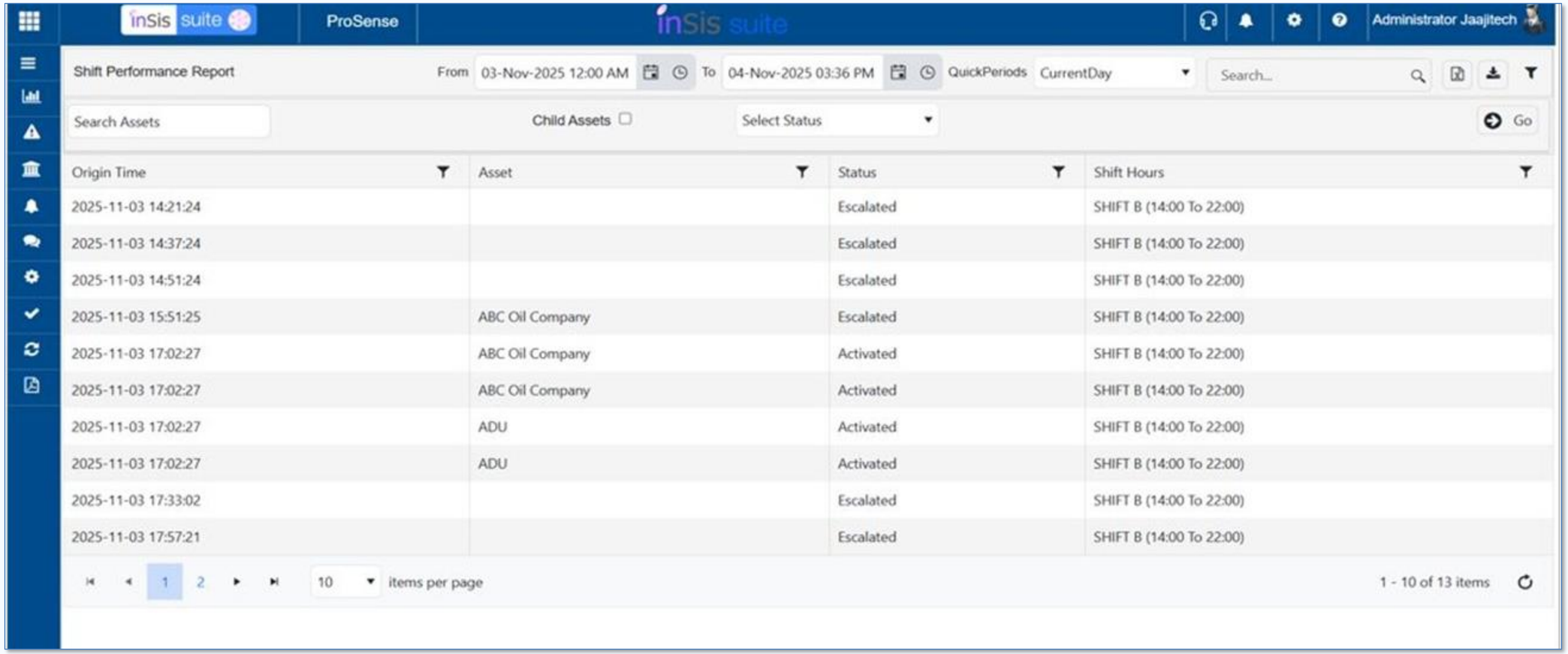
# SHIFT PERFORMANCE REPORTS

The Shift Performance Report displays all events that occurred during different operator shifts within a selected time period. It helps track operational performance by showing the event origin time, associated asset, current event status (Activated or Escalated), and shift hours.

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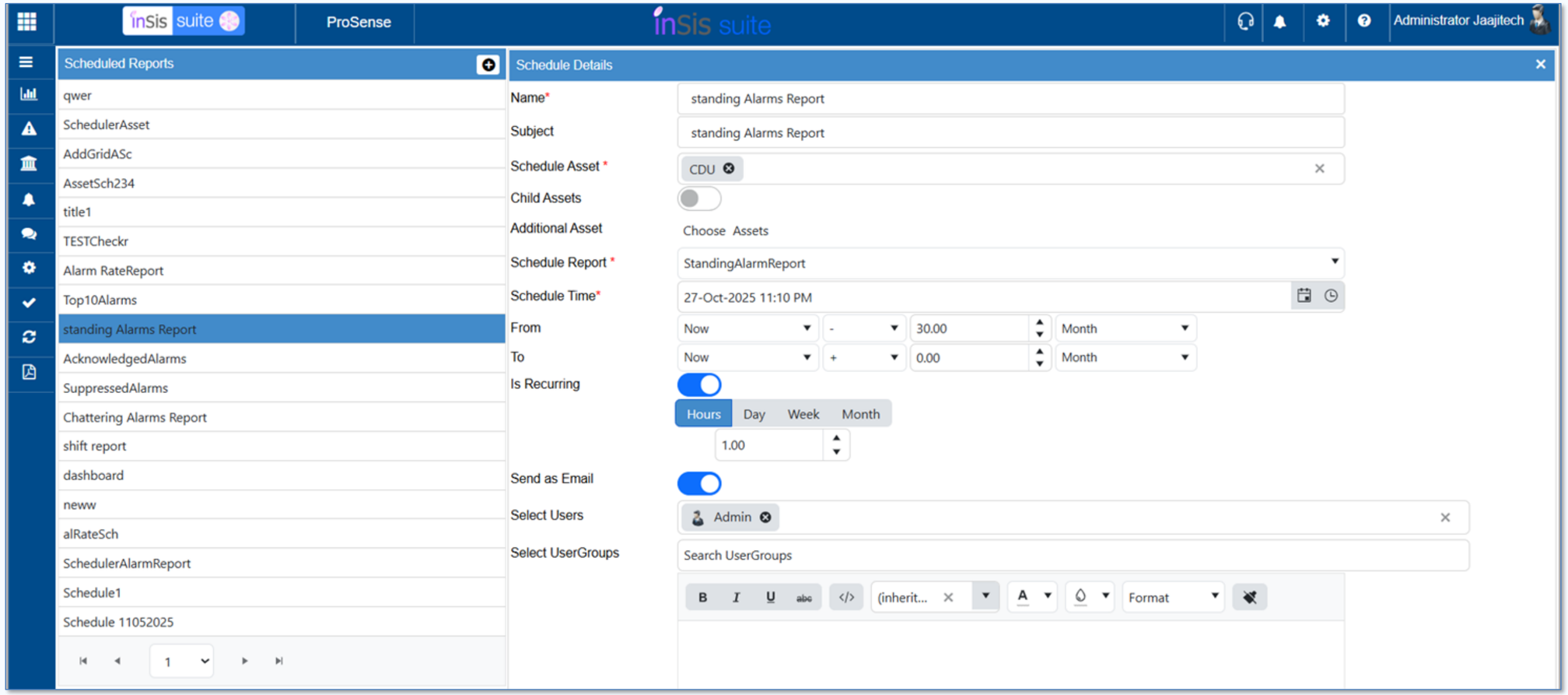
# SCHEDULED REPORTS

The Scheduler Reports feature allows users to automatically generate and share various reports at predefined times. Users can select specific assets, choose report types, set schedule frequency, and send reports via email to selected users or groups. This helps ensure timely monitoring and analysis without manual effort.

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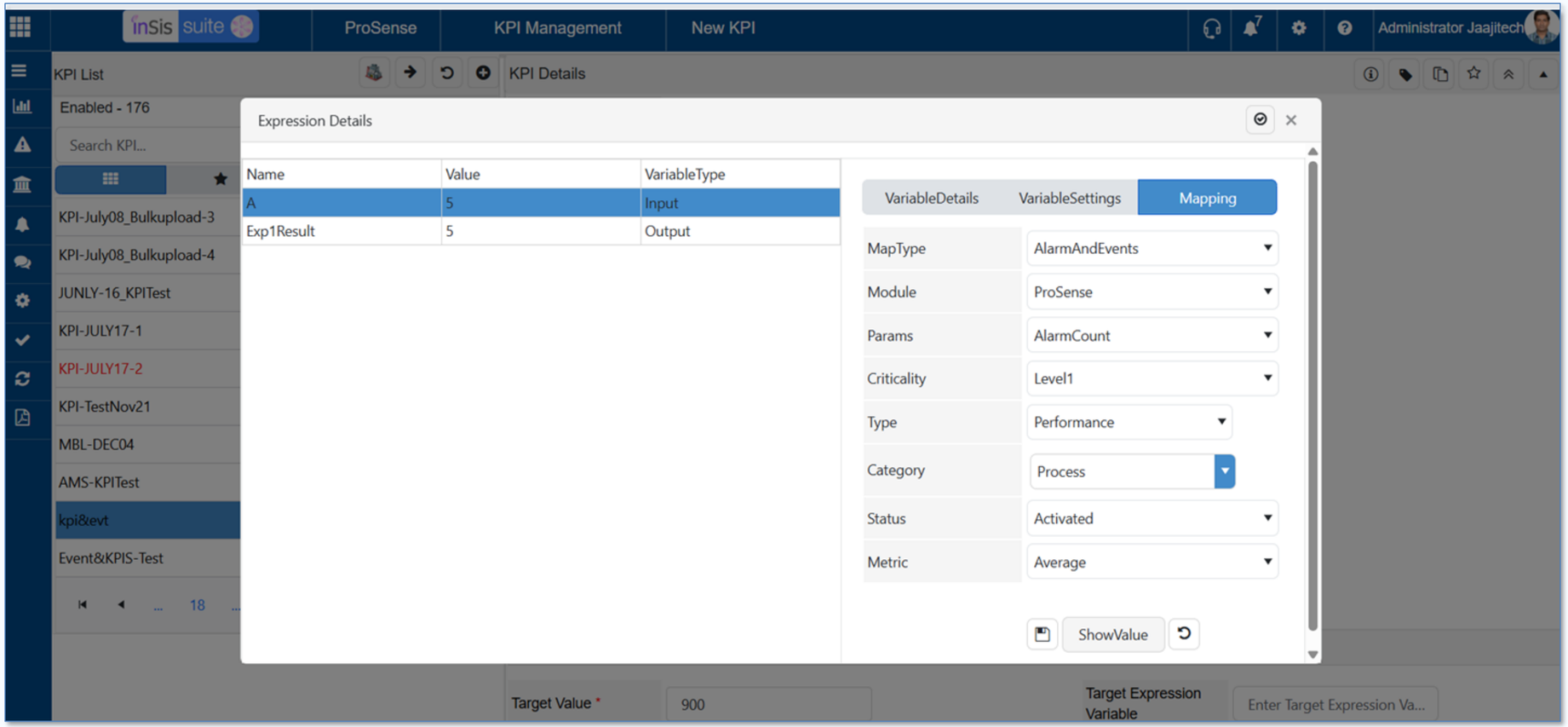
# AMS OPTION IN KPI'S

The AMS option is used to map alarms and events to KPIs and store the corresponding alarm data under the selected KPI.
Based on the KPI start and end time, all alarms generated within that time range are mapped and counted for the KPI.
In the mapping configuration, users can define the module, parameters, criticality, status and metrics. To enable this, users need to select the map type as **Alarm & Events**.

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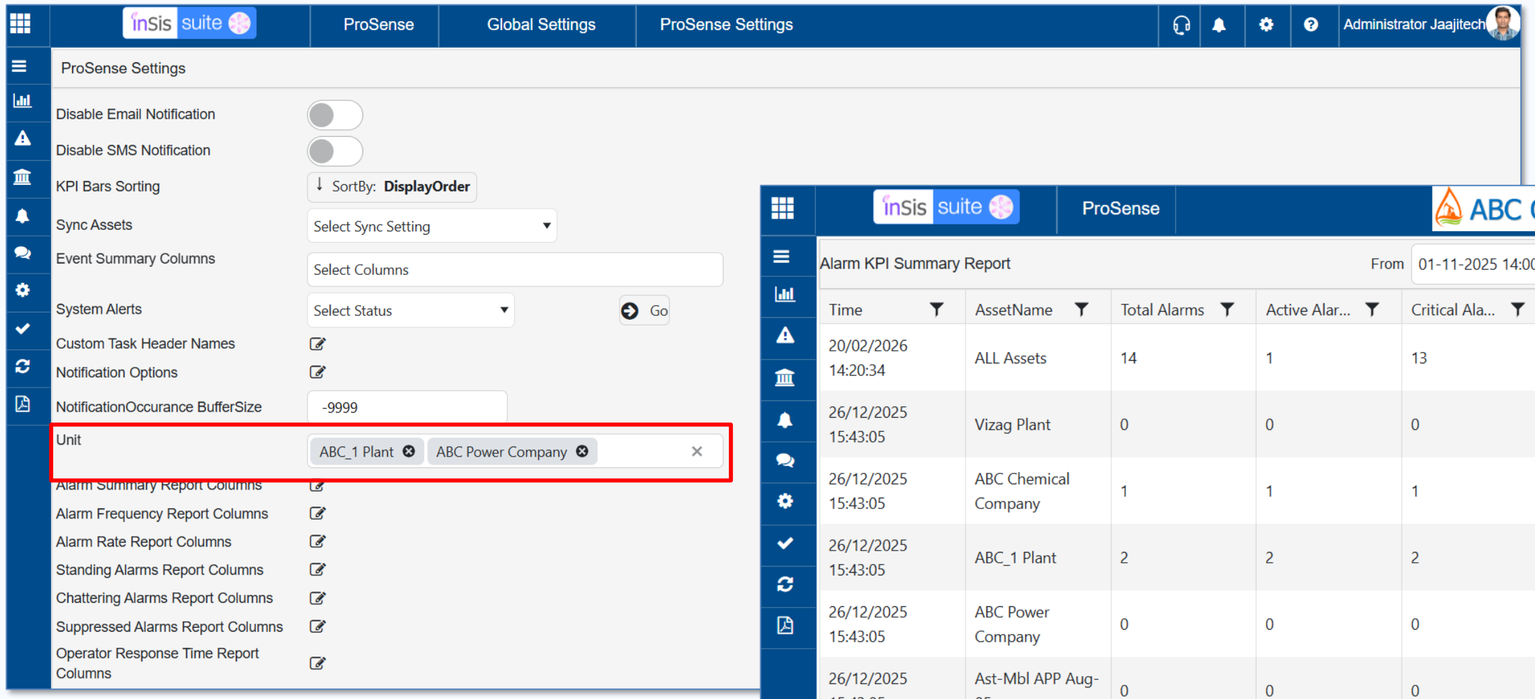
# ALARM KPI SUMMARY REPORT

In the KPI Summary Report, users can view all alarm data across all assets. To access this report, navigate to the **Reports** section.
In ProSense settings, users need to select the required unit (asset). Once selected, alarms related to that asset will be displayed, and an **All-Assets** column will also be added to the list





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# THANK YOU

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