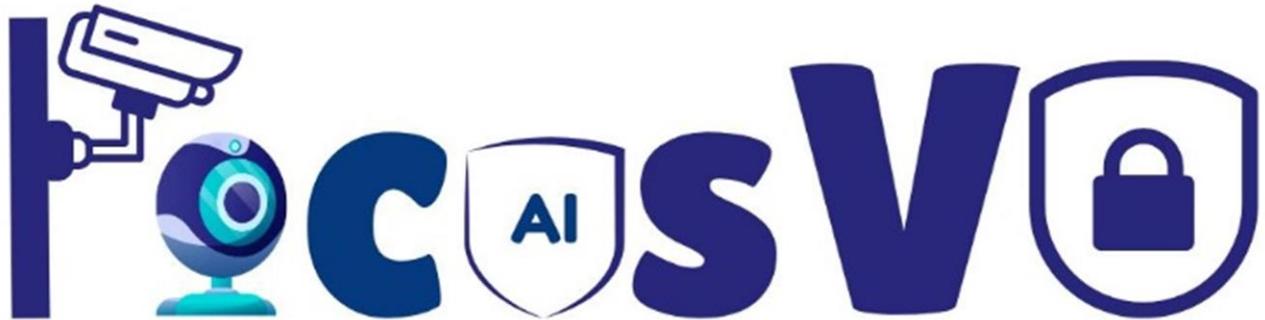


"The Power of Intelligent Vision"



Detect. Decide. Defend, Instantly



The Eye of Future Security

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Chemical & Fertilizer Industries

Overview

Chemical and fertilizer industries operate under highly sensitive, regulated, and time-critical conditions. Ensuring worker safety, operational accuracy, and secure handling of hazardous materials is crucial. FocusVU.ai introduces an AI-integrated CCTV solution that transforms passive surveillance into an active operational command layer—ensuring regulatory compliance, minimizing human error, and optimizing productivity.

1. WORKFORCE MONITORING & TASK DISCIPLINE

Problem Statement

- Labor-intensive tasks with precision timing often suffer from idle time or delays
- Unauthorized or unscheduled entries into restricted process areas

AI-Powered Solution Table

Area	No. of Cameras	Key AI Features
Production Floor	6	Time-on-Task Analytics, Worker Presence Tracking
Shift Entry/Exit Gates	3	Face Recognition, Attendance Logging
Hazard Zones Access	2	Unauthorized Entry Alert, Time-Stamped Zone Entry Detection

Advantages

- Tracks worker activity vs assigned tasks in real time
- Identifies areas of operational delay or staff misuse
- Digital shift logs to streamline billing and HR records

ROI & Financial Benefits

- Reduces productivity loss by 15–25%
- Saves ₹5–10 lakhs/month by preventing idle work hours
- Faster shift turnover and increased process throughput

2. SAFETY COMPLIANCE & PPE MONITORING

Problem Statement

- Risk of hazardous exposure due to PPE non-compliance
- Human supervisors fail to monitor 100% in real-time

AI-Powered Solution Table

Area	No. of Cameras	Key AI Features
Mixing Zones	3	Helmet, Gloves, Apron Detection, Fall Alerts
Loading Bay	2	Fire/Smoke Detection, Emergency Gesture Alerts
High-Risk Storage	2	Tamper Alerts, PPE Zone Violation Detection

Advantages

- Prevents accidents and ensures compliance with audit logs
- Real-time alerts to safety officers on mobile or dashboard
- Tracks habitual safety defaulters by face ID

ROI & Compliance Impact

- ₹10–25 lakhs/year saved in accident-related downtime or penalties
- Supports ISO/GMP/HSE compliance with documented video evidence
- Reduces insurance premium through proactive risk reduction

3. MATERIAL FLOW & COMPOSITIONAL ACCURACY

Problem Statement

- Precise batch timing and sequencing critical to chemical composition
- Delays or wrong batching can cause spoilage or unsafe reactions

AI-Powered Solution Table

Area	No. of Cameras	Key AI Features
Material Input Bay	2	Auto Logging of Input Sequence, Delay Detection
Reactor Floor	3	Activity Recognition, Process Violation Detection
Mixing Control Room	1	Operator Alertness Monitoring, Inactivity Detection

Advantages

- Ensures adherence to SOPs in batch processing
- Minimizes risk of wrong mix ratios or delays
- Provides visual proof for internal QA and third-party audit

ROI & Accuracy Gains

- Saves ₹3–8 lakhs/month in batch rejection losses
- Reduces dependency on manual operator reporting
- Enhances product quality and plant efficiency

4. PERIMETER & HAZMAT SECURITY

Problem Statement

- Risk of unauthorized access to storage or transportation of hazardous material
- Inadequate tracking of third-party vendor movement

AI-Powered Solution Table

Area	No. of Cameras	Key AI Features
Plant Perimeter	4	Intrusion Detection, Thermal Night Vision
HAZMAT Storage	3	Motion Detection, Object Left Alert, Entry Logs
Loading/Unloading	2	License Plate Recognition, Vehicle Dwell Time Analytics

Advantages

- Secures plant against external sabotage or theft
- Ensures HAZMAT zones are monitored 24x7 with AI alert triggers
- Integrates with emergency SOPs for evacuation planning

ROI & Safety ROI

- Prevents ₹50 lakh+ losses from a single critical incident
- Strengthens regulatory and homeland security compliance
- Reduces manpower requirement in hazardous areas

FocusVU.ai Highlights for Chemical & Fertilizer Plants

- AI-trained for safety compliance, activity analytics, and real-time alerts
- Industry-specific customization for HAZMAT and regulated zones
- Time-lapse and task productivity dashboards
- Edge + Cloud architecture to support remote operations and reporting

Conclusion

FocusVU.ai enables chemical and fertilizer manufacturers to gain visual control over sensitive operations. From securing hazardous areas to ensuring worker compliance and reducing material losses, AI surveillance unlocks new efficiencies, improves safety standards, and supports sustainable manufacturing.

Explore our industrial-grade CCTV AI kits and request a customized demo at: www.FocusVU.ai