

EHS SERVICES

Environment • Health • Safety

Yatendra Rathi

Ex-AGM | API & Formulation Plant | 30+ Years Experience

Professional EHS Consulting • Training • Audits • Fire System Assessment • Risk Assessment

FACULTY PROFILE

Yatendra Rathi

30+ Years
EHS Experience

M.Sc. + MBA
University Topper

Lead Auditor
ISO 14001 & 45001

- Advance Diploma in Industrial Safety (Regular) – MSBTE
- Guest Lecturer – Officers Training Center (OTC) Gwalior, OSH Courses
- Trainer & Fire System Auditor – M.P. Fire Service & Disaster Management, Bhopal (Govt. of India)
- Completed IS 14489:2018 (Occupational Health & Safety Audit Code of Practice)

SAFETY TRAINING TOPICS

- First Aid Training
- Fire Fighting & System Assessment
- Legal Compliance
- ISO 45001:2018
- Behavior Based Safety (BBS)
- Job Safety Analysis (JSA)
- Chemical Safety & MSDS
- Confined Space Safety
- LOTO (Lockout-Tagout)
- Electrical Safety
- Permit to Work System
- Warehouse Safety
- Fork-Lift Safety
- Machine Guarding & Safety
- Static Charge: Hazards & Controls
- On-Site Emergency Plan
- Incident Investigation
- Safety Culture at Work
- Ergonomics & Back Safety
- 5S & Office Safety
- Defensive Driving
- Earthquake Safety

ENVIRONMENT TRAINING & SERVICES

Environment Trainings

- Hazardous Waste Management
- ETP Management
- Environment Management
- Bio-medical Waste Management
- Environmental Monitoring
- PCB Liaisoning
- ISO 14001:2015
- E-Waste Management
- Plastic Waste Management

Environment Services

- Apply for CTE / CTO
- Hazardous Waste Authorization
- Bio-medical Waste Authorization
- Environment Statement Report
- Hazardous Waste Return
- Bio-medical Waste Return
- Environment Audit
- E-Waste & Battery Waste Return
- Form-4 & Form-5 Submission

SAFETY & ENVIRONMENT AUDITS

Safety Audit – IS 14489:2018
Occupational Health & Safety Audit as per Indian Standard Code of Practice

Internal Training – ISO 45001:2018
Occupational Health & Safety Management System conformity assessment

Fire System Assessment & Audit
Assessment of fire detection, suppression, hydrant & alarm systems; compliance to NBC, Factories Act & IS codes

Internal Training – ISO 14001:2015
Environmental Management System audit and gap analysis

Legal Compliance Audit
Audit against Consents, Authorizations, NOCs & Fire NOC issued by PCB & Fire Department

Environment Audit, Water audit, Water Balance, Waste Water Management, Hazardous Waste Management
Audit against Consents, Authorizations issued by PCB

ADVANCED RISK ASSESSMENT SERVICES

Comprehensive risk assessment capabilities covering process safety, occupational health and site logistics

Qualitative RA

Risk matrix scoring using severity × likelihood for prioritization

Quantitative RA

Data-driven numerical analysis with probabilistic risk models

HAZOP Study

Systematic process deviation analysis using guide words

LOPA

Layer of Protection Analysis for SIL & risk reduction

Ergonomics RA

Workstation & manual handling risk to prevent MSDs

Road Safety RA

On-site traffic, vehicle & pedestrian interface assessment

QUALITATIVE & QUANTITATIVE RISK ASSESSMENT

Qualitative Risk Assessment

Risk Matrix Approach
Severity × Likelihood scoring to rank hazards and prioritize controls

Hazard Identification
Walkthroughs, checklists, JSA, what-if analysis and brainstorming

Risk Ranking
Low / Medium / High / Extreme categories with defined action levels

Control Hierarchy
Elimination → Substitution → Engineering → Admin → PPE

Deliverables
Risk register, residual risk profile, prioritized action plan

Quantitative Risk Assessment

Numerical Modelling
Probability of failure, consequence modelling and event trees

Key Metrics
Individual Risk (IR), Societal Risk (FN curves), PLL

Techniques Used
Fault Tree Analysis (FTA), Event Tree Analysis (ETA), QRA software

Data Sources
Historical incident data, failure rate databases, site-specific data

Deliverables
Risk contours, ALARP demonstration, quantified residual risk

HAZOP STUDY & LOPA

HAZOP Study

What is HAZOP?
Hazard & Operability study – structured team-based examination of process design

Guide Words
No / Less / More / Reverse / Other Than applied to process parameters

Nodes & Parameters
P&IDs divided into nodes; Flow, Pressure, Temp, Level, Composition reviewed

Team Composition
Process, operations, maintenance, instrumentation & safety specialists

Outputs
Deviation list, causes, consequences, safeguards, recommendations & action tracking

LOPA (Layer of Protection Analysis)

Purpose
Semi-quantitative method to evaluate risk reduction of Independent Protection Layers

IPL Evaluation
Assess BPCS, alarms, SIS, relief systems, procedural controls for independence

SIL Determination
Calculate required Risk Reduction Factor and assign Safety Integrity Level

Initiating Events
Identify initiating causes and frequency; apply enabling conditions & conditional modifiers

Outputs
LOPA worksheets, IPL credit justification, SIL targets, recommendations

ERGONOMICS & INDUSTRY ROAD SAFETY ASSESSMENT

Ergonomics Risk Assessment

Focus Areas
Workstation design, posture, repetitive tasks, manual material handling

Risk Factors
Force, frequency, duration, awkward posture, vibration, contact stress

MSD Prevention
Identify root causes of musculoskeletal disorders and fatigue

Deliverables
Ergo risk scores, redesign recommendations, training & job rotation plans

Industry Road Safety Assessment

Scope
Internal roads, parking, loading bays, vehicle–pedestrian interfaces

Key Elements
Traffic flow, speed control, signage, segregation, lighting, one-way systems

Vehicle Types
Forklifts, trucks, tankers, visitor vehicles, two-wheelers, emergency vehicles

Assessment Method
Site survey, traffic observation, near-miss review, layout evaluation

Deliverables
Risk map, traffic management plan, control recommendations & signage plan

WATER MANAGEMENT & WASTEWATER TREATMENT

Water Balance & Management

Scope
Water source mapping, consumption metering, process & utility water balance

Water Balance Study
Input-output audit across intake, process, cooling, domestic & discharge streams

Conservation Strategy
Reduce-Reuse-Recycle approach, rainwater harvesting, leak & loss control

Regulatory Compliance
CGWA / CTE-CTO water consent compliance and water audit reporting

Deliverables
Water balance diagram, Sankey chart, conservation action plan

Wastewater Treatment Optimization

Scope
ETP/STP process review, treatment capacity and efficiency assessment

Process Optimization
Aeration, coagulation-flocculation, sludge handling, chemical dosing optimization

Performance Parameters
BOD, COD, TSS, pH, oil & grease reduction to PCB discharge norms

Zero Liquid Discharge
RO/MEE feasibility study, treated water reuse and recycling

Deliverables
ETP audit report, optimization recommendations, O&M SOPs

INDUSTRY EXPERIENCE & CLIENTS

Providing EHS Services to Reputed Manufacturing Plants

Teva API
Pharmaceuticals

Godrej
Consumer Goods

Kurlon
Manufacturing

Supreme Industries
Plastics

Vikram Woolen
Textiles

SRF – Gwalior
Chemicals

Surya Roshni
Lighting & Steel

Hero Motor Corps
Automotive

Mankind Pharma
Formulation

Carlsbery
Beverage

Kalptaru India
Construction

DLF
Construction

KEY DIFFERENTIATORS

01

Deep Domain Expertise

30 years hands-on experience across API, chemical & manufacturing plants

02

Accredited Credentials

Lead Auditor ISO 14001 & 45001, IS 14489 trained, Fire System Audit & Disaster trainer

03

End-to-End Solutions

Training, audits, fire system assessment, legal compliance, PCB liaisoning and advanced risk assessment under one roof

04

Practical Approach

Focus on implementable recommendations that improve safety culture and regulatory standing

THANK YOU

Partnering for a Safer & Greener Workplace

Yatendra Rathi | EHS Consultant & Lead Auditor

Training • Audits • Fire System Assessment • Risk Assessment • Compliance