



Integrated HSE Management Foundations for Plant Teams



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Integrated HSE Management Foundations for Plant Teams is a 5-day course for supervisors, engineers and coordinators who need to run health, safety and environment as one plant system. You build a shared policy, a joint hazard and aspect register, common controls and one internal audit plan, and you take back an Integrated HSE Starter Pack. Mercury Training Center delivers this integrated HSE management foundations course.

About This Course

Many plants run safety, health and environment as three systems with separate forms, audits and owners, so hazards and aspects fall between them. To follow the course you should already take part in risk assessments, permits or inspections on site. You practice on plant cases and build your own integrated documents.

Who It Is For

- People who supervise shifts and enforce permits and inspections on the plant floor.
- People who keep safety, health or environmental records ready for audit.
- People who plan maintenance and shutdowns and control their hazards and emissions.
- People who coordinate management system documents and must merge them.
- People moving into a site HSE role from operations or engineering.

This course is not for senior HSE leaders running integrated systems across several sites, who are better served by a longer advanced HSE governance course, nor for readers who mainly need external audit technique, who suit a dedicated auditor course.

Competencies You Will Build

- Integrated Policy Drafting: you write one HSE policy and objectives that every plant team works to.
- Hazard and Aspect Mapping: you walk a process area and record hazards and aspects in one register.
- Single Matrix Rating: you score risks and impacts on one matrix and agree what comes first.
- Control Selection: you apply the hierarchy of controls without creating a new release.
- Joint Auditing: you run one internal audit covering safety, health and environment.
- Performance Tracking: you report leading and lagging indicators in one monthly review.

What You Will Be Able to Do

By the end of the course you will be able to:

- Using the clauses shared by ISO 45001 and ISO 14001, merge your plant's overlapping documents into one structure.
- Given a process flow of a plant area, enter its hazards, exposures and aspects in a joint register.
- From a joint register, rate each entry on one matrix and produce a prioritized control list with named owners.
- Given an injury or a spill, run a root cause analysis and write actions closing both gaps.
- Using a sample checklist, plan and report a combined internal audit of one plant area.
- From your plant's existing records, select a short indicator set for a single HSE performance review.

Course Content

Day 1: Integrated HSE Basics

- Harmonized Structure of ISO 45001 and ISO 14001 for Plant Management Systems
- Gap Mapping of Separate Safety, Health and Environment Documents on Site
- Single HSE Policy and Objectives for Operations and Maintenance Teams
- Roles and Authority Matrix for Plant HSE Duties
- Legal and Other Requirements Register for Plant Activities

Day 2: Hazards, Aspects and Exposure

- Process Walk-Through Method for Hazard Identification in Production Areas
- Aspects and Impacts Review for Emissions, Effluents and Waste Streams
- Occupational Exposure Assessment for Noise, Dust and Chemicals
- Joint Hazard and Aspect Register Template for One Plant Area
- Job Safety Analysis for Routine Maintenance and Shutdown Tasks

Day 3: Risk Rating and Controls

- Single Risk Matrix for Safety and Environmental Ratings
- Hierarchy of Controls Applied to Plant Hazards and Releases
- Permit to Work and Lockout Tagout Links with Environmental Controls
- Management of Change Review for Process and Equipment Modifications
- Emergency Response Plan for Fires, Spills and Toxic Releases

Day 4: Checking and Improving

- Leading and Lagging Indicators for a Single HSE Scorecard
- Incident and Near Miss Investigation Using Root Cause Analysis
- Combined Internal Audit Checklist for Safety, Health and Environment
- Corrective and Preventive Action Log with Owners and Due Dates
- Management Review Agenda for Plant HSE Performance

Day 5: Practice Building the Integrated HSE Starter Pack

- Exercise: Merging Two Plant Policies into One Integrated HSE Policy
- Exercise: Rating a Joint Register Extract from a Chemical Storage Area
- Exercise: Planning a Combined Audit of a Maintenance Area
- Exercise: Drafting Corrective Actions from a Spill and Injury Case
- Completing the Integrated HSE Starter Pack for Your Own Plant

Case Studies and Exercises

These are suggested activities.

- Case study: separate audits at a food processing plant both miss an ammonia refrigeration risk; you decide which audit elements to merge.
- Case study: a cement kiln shutdown raises worker dust exposure and air emissions; you rate both on one matrix and choose controls.
- Exercise: a solvent spill at a chemical store injures an operator; you write actions covering the person and the release.
- Exercise: a power generation site holds three policies; you merge them into one with objectives.

What You Take Back

The Integrated HSE Starter Pack is the set of documents you complete for your own plant during the course. In your first month back, you use it to agree one policy with your manager, fill the joint register for one area and schedule the first combined internal audit.

- A draft integrated HSE policy with measurable objectives.
- A joint hazard and aspect register with ratings, controls and owners.
- A combined internal audit plan and checklist.
- An indicator set and a corrective action log.

Quick Answers FAQ

What should I know before Integrated HSE Management Foundations training?

You should already take part in risk assessments, permits or inspections on a plant. No management system background is needed; the shared clauses of ISO 45001 and ISO 14001 are explained from the start.

How does Integrated HSE Management Foundations differ from an advanced HSE leadership course?

It works at plant level over one week and builds the basic integrated documents. Advanced leadership courses run longer and cover multi-site governance, strategy and culture.



Why combine safety and environmental management into one integrated HSE system?

One system removes duplicated forms, audits and reviews and stops hazards and aspects falling between two teams. A single matrix also shows which risks need action first.

What do I take back from Integrated HSE Management Foundations for Plant Teams?

You take back the Integrated HSE Starter Pack: a draft policy, a joint hazard and aspect register, a combined audit plan and an indicator set, all built on your own plant's activities.

For Your Manager

After the course, the team member can merge the plant's safety and environment documents, run one hazard and aspect register and plan a combined internal audit. They return with the Integrated HSE Starter Pack for their own area, first used to set up the joint register and schedule the next internal audit.