



**ISO 14001 ENVIRONMENTAL MANAGEMENT  
SYSTEM APPLICATIONS BOOKLET**

**2021**

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## Our Risk Management for COVID-19

As COVID-19 quickly turned into a worldwide health, economic and geopolitical crisis in an unprecedented manner, we took action against the pandemic by implementing the measures for source of transmission, mode for transmission and host of transmission at our companies to protect the health of our employees and their families as well as our subcontractors, customers, and visitors.

With their effective measures and efforts for combating the pandemic, our companies Polisan Kansai Boya, Poliport Kimya, and Polisan Kimya were awarded the COVID-19 Safe Production Certificate by fulfilling all the criteria in the guide published by the Turkish Standards Institution (TSE). These documents prove that our production is reliable, hygienic, and unaffected by the pandemic. They have also helped us establish trust in everyone visiting our sites and offices, especially our employees, subcontractors, and their families.

## Policy and Purpose

We manage our operations according to our Sustainability Policy and our Quality, Health, Safety and Environment Policy which provides a framework for identifying our environmental objectives and through which we share our commitment to continuously improve our system.

Effective management of our impacts for several aspects included environment is ensured by management systems and standards.

- ISO 9001 Quality, ISO 14001 Environment, ISO 45001 Occupational Health and Safety, ISO 50001 Energy, ISO 27001 Information Security Management Systems.
- Process Safety Management Program
- Chemical Distribution Institute – Terminals (CDI-T), Zero Waste, Eco Port / Green Port certificates.

### Main Documents:

PH.POL.003 Polisan Holding Sustainability Policy  
PH.POL.001 Energy Management System Policy  
PB.POL.001 Polisan Kansai Boya Quality, Health, Safety and Environment Policy  
PK.POL.001 Polisan Kimya Quality, Health, Safety and Environment Policy  
PK.POL.003 Polisan Kimya Extensive Industrial Accident Prevention Policy  
PP.POL.001 Poliport Kimya Quality, Health, Safety and Environment Policy  
PP.POL.003 Poliport Kimya Security Policy  
PP.POL.004 Poliport Major Accident Prevention Policy

Related Clause: ISO 14001:2015 Clause 5.2

## Targets and Programs

With the eBA Target Action Planning Process, we monitor and report on the environmental performance indicators specified in our process plans and effectively operate our processes. In order to achieve our strategic targets, we also manage the process target actions associated with related core processes and sub-processes through the QDMS Integrated Management System.

Strategic target mapping allow us to set our targets to create significant results in line with our policies.

### Main Documents:

PH.022 Process Management Procedure  
FPH.022-03.00 Polisan Holding Strategic Target Table

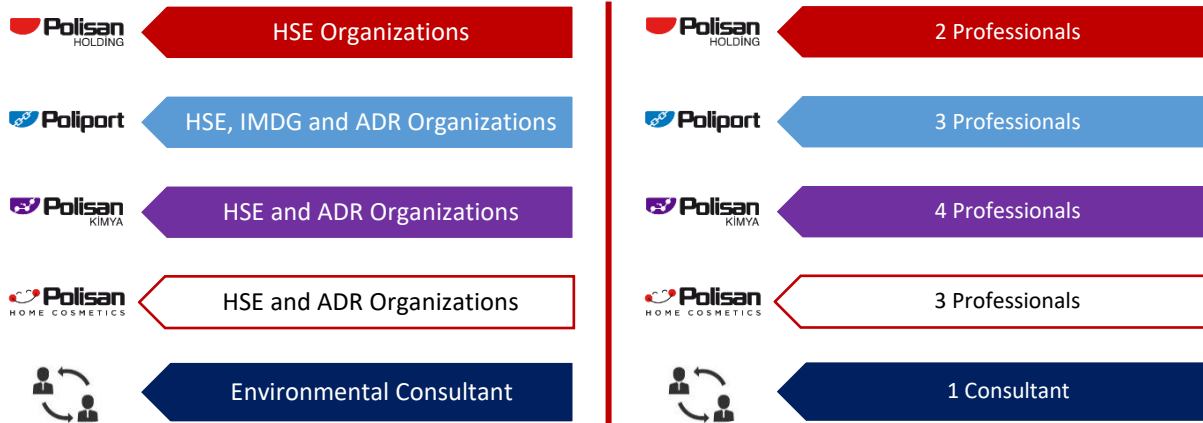
Related Clause: ISO 14001:2015 Clause 6.2



## Organizational Structure, Competencies and Resources

The requirements of the environmental management system are coordinated and met by expert units across Polisan Holding and its subsidiaries, i.e. Polisan Kansai Boya, Polisan Kimya and Poliport Kimya. Organizational structures and responsibilities of these units have been defined in the QDMS Integrated Management System.

### Main Organizational Structures:



### Related Clause: ISO 14001:2015 Clause 5.3

For our staff who have the required competencies as specified in their job descriptions and hold a position that could potentially cause significant environmental impact, we plan the training requirements and provide them with training on an annual basis. On-the-job training, periodic OHS training, ADR training, legal requirement training, emission management training and chemical management training provided as per the PH.019 Training Procedure are conducted by the HSE Directorate; while on-the-job training for blue-collar employees involved in the production processes is conducted by our production units and the internal auditor training, management systems awareness training, carbon footprint training and sustainability training are conducted by the Management Systems and Sustainability Directorate. Trainings are followed with SAP and LMS portals.

As remote working models are on the rise, we have completed our transition to the LMS infrastructure to increase the efficiency and participation in our training process. This way, we have continued our compulsory trainings such as health and safety, environment and process safety more easily and quickly despite the social quarantine.

### Main Documents:

PH.GT.45 Polisan Holding\_Environmental Expert  
 PH.GT.100 Polisan Holding\_Hazardous Substances Safety Expert  
 PH.GT.114 Polisan Holding\_Occupational Health and Safety Manager  
 PH.GT.126 Polisan Holding\_Management System and Sustainability Manager  
 PH.GT.129 Polisan Holding\_Sustainability Expert  
 PH.019 Training Procedure  
 SH.030 Training Process  
 PH.022 Process Management Procedure

### Related Clause: ISO 14001:2015 Clause 7

When allocating the resources that are needed for the environmental management system as part of our department and investment budgets on an annual basis, we consider all factors including the risk assessment and management review outputs, environmental aspect analyses, audit results and environmental and process incidents.

Related Procedure;

PH.022 Process Management Procedure

PH.048 Project Management Procedure

PH.039 Risk Assessment and Environmental Impact Assessment Procedure

PH.047 Change Management Procedure

PH.028 Environment, OHS, Energy and Information Security Monitoring and Measuring Procedure

PH.108 Process Risks and Opportunities Management Procedure

PH.147 Polisan Holding Budget Procedure

PK.012 Polisan Kimya Budget Procedure

PP.003 Poliport Kimya Budget Procedure

*Related Clause:* ISO 14001:2015 Clause 7.1

## **Assessment of Environmental Aspects**

The environmental impacts associated with each environmental aspect as specified with regard to our operations that have an environmental impact are reviewed and recorded by our Environmental Consultants in terms of the following:

- Water pollution
- Soil pollution
- Noise pollution
- Air pollution
- Emergencies
- Use of natural resources

Constant improvement of our analysis are ensured by the audits of our Environmental Consultancy company and our 3rd party measurements.

Key factors considered during Environmental Aspect assessment;

- Environmental aspects subject to applicable laws, regulations, license requirements and/or other requirements;

- Environmental aspects related to circumstances which could potentially cause accidents as a result of fluid or gas leakage that are subject to regulations or worthy of environmental consideration;

(Such environmental aspects are controlled and managed by implementing Emergency Procedures.)

- Environmental aspects related to energy use;
- Environmental aspects related to environmental release of one or more of the following in high amounts; toxicity (content of materials and waste), amounts (volume and mass of leakages), consumption of natural resources (consumption of renewable and non-renewable resources), frequency of incidents, severity of actual or potential impacts.

While planning our production processes and products in the regions where we operate, we carefully follow all local and global sectoral standards and regulations, and we assess planning processes in our change management processes with 8 main articles.

*Main Documents:*

PH.039 Holding Risk Assessment and Environmental Impact Assessment

SH.007 Environmental Impact Aspect Analysis Process

FPH.045-06.00 Pre-Work Risk and Environmental Aspect Analysis Form

*Related Clause:* ISO 14001:2015 Clause 6.1.2

## **Preparing Environmental Impact Control Plans**

We prepare our control plans, in which the necessary additional control measures are decided, according to the criteria and obligations specified in Other Technical Arrangements concerning Environment, Occupational Health and Safety as well as the applicable legislation and workplace conditions. We record and monitor details such as

the activities planned to be undertaken to bring down the risk score to a tolerable level as well as the associated responsible persons, estimated costs and completion dates of such activities in the FPH.039-01.00 OHS Risk and Environmental Aspect Assessment and Control Activities reports.

With the QDMS Action Management module, we monitor the progress reports sent to related managers about all stages and results of risk and environmental impact assessments additional control measures that are decided to be undertaken and their timely completion, at all operational steps in the workflow that we perform.

*Main Documents:*

PH.022 Process Management Procedure

PH.039 Holding Risk Assessment and Environmental Impact Assessment

*Related Clause:* ISO 14001:2015 Clause 8.1

## **Risk and Opportunity Identification Activities**

We believe our risk and opportunity identification activities, which we determine with the SWOT analyzes of our processes, as the assurance of achieving the desired results within the framework of our environmental management system. Our process risk and opportunity analyzes provide input to our operational risk and environmental impact management. For risk control purposes, we electronically monitor the details including actions, responsible persons and deadlines that we record in the FPH.108-01.00 Process Risk Assessment Template again through the QDMS Action Management module. Examples of circumstances which could cause an environmental hazard are listed below:

- Air emissions
- Disposal/recovery of hazardous/non-hazardous waste
- Chemical leakage and spillage
- Rainwater drainage
- Storage tanks
- Noise
- Wastewater discharge
- Energy use
- Water use
- Materials use
- Odors
- Terrain conditions
- Management of all waste
- Compliance with regulations and other requirements

*Main Documents:*

PH.039 Risk Assessment and Environmental Impact Assessment Procedure

PH.108 Process Risks and Opportunities Management Procedure

PH.022 Process Management Procedure

FPH.045-06.00 Pre-Work Risk and Environmental Aspect Analysis Form

FTK.203-06.00 Greenhouse Gas Emissions Risk Assessment

PH.RISK.002 Health, Safety and Environment Process Risk Assessment Form

FPH.039-01.00 OHS Risk and Environmental Aspect Assessment and Control Activities

*Related Clause:* ISO 14001:2015 Clause 6.1

## **Environmental Incidents and Emergency Management**

For our own employees, subcontractor employees and visitors, we use the PH.034 Event Management Procedure to establish procedures and rules concerning accidents at work and environmental incidents, employee injuries

and diseases associated with current and potential work activities. With the eBA Workflow System, we record the root causes of any incidents as well as suggested actions to prevent recurrence of such incidents.

### Environmental Incident Classification Table

| RESULT   |                  | INCREASED LIKELIHOOD       |                          |   |   |  |
|----------|------------------|----------------------------|--------------------------|---|---|--|
| Severity | ENVIRONMENT      | A                          | B                        | C   | D   | E  |
|          |                  | Unheard-of in the industry | Heard of in the industry | Occurred in the organization/ company or occurred more than once per year in the industry | Occurred in the facility or occurred more than once per year in the organization/ company | Occurred more than once per year in the facility |
| 0        | No impact        |                            |                          |   |   |  |
| 1        | Mild impact      |                            |                          |   |   |  |
| 2        | Low impact       |                            |                          |   |   |  |
| 3        | Moderate Impact  |                            |                          |   |   |  |
| 4        | High impact      |                            |                          |   |   |  |
| 5        | Very high impact |                            |                          |   |   |  |

### Environmental Impact Definitions

Very High Impact:  
Loss of life, more than 3 cases of injury or resulting from an occupational disease.

High Impact:  
Environmental damage that requires comprehensive activities in order to restore the affected area.

Moderate Impact:  
Limited environmental damage with ongoing effect or that requires decontamination.

Low Impact:  
Little environmental damage without any lasting effect.

Mild Impact:  
Mild environmental damage that occurs within the boundaries of a site.

We keep our Emergency Plans up-to-date and use them for various purposes, including minimising the loss of life in an emergency, taking the situation under control, conducting damage assessments, defining the related duties, authorities and responsible persons. We strive to improve our emergency preparedness by conducting emergency response drills including environmental spillage, fire and coastal facility emergency response drills.

The Emergency Response Team (ADME) consists of members with the necessary training and authorization to carry out emergency actions across the companies, and the team members receive periodic training to refresh their technical knowledge.

*Main Documents;*

PH.034 Event Management Procedure  
PH.035 Environmental Actions Management Procedure  
PH.037 Environmental Complaints from Communities Procedure  
TH.050 Polisan Holding Chemical Leakage and Spill Response Instruction  
TB.489 Polisan Kansai Boya Chemical Leakage and Spill Response Instruction  
PB.ADPEK.01 Polisan Kansai Boya Emergency Response Plan  
PB.ADPEK.02 Polisan Kansai Boya Headquarters Emergency Response Plan  
PK.ADPEK.01 Polisan Kimya Emergency Response Plan  
PK.ADPEK.02 Polisan Kimya Adana Emergency Action Plan  
PK.ADPEK.03 Polisan Kimya Samsun Emergency Response Plan  
PP.ADPEK.01 Poliport Kimya Emergency Response Plan  
PH.ADPEK.01 Polisan Holding Headquarters Emergency Response Plan  
Poliport Kimya San. Ve Tic. A.Ş. Hazardous Substance Directory  
Poliport Kimya San. Ve Tic. A.Ş. Coastal Facility Dangerous Goods Compliance Certificate  
Poliport Kimya San. Ve Tic. A.Ş. Coastal Facility Risk Assessment and Emergency Response Plan (Approved)  
Poliport Kimya San. Ve Tic. A.Ş. Green Port / Eco Port Project Sectoral Criteria Document

*Related Clause:* ISO 14001:2015 Clause 8.2

## **Controlling, Monitoring, Measuring, Analysing and Assessing Activities**

By monitoring, measuring, analysing and assessing activities, we maintain control of the environmental performance of our businesses and guarantee the effectiveness of our environmental management system.

## **Waste Management**



We have integrated circular economy approaches to our waste management processes. Continuous improvement of processes is essential at our facilities, Polisan Kansai Boya, Polisan Kimya and Poliport Kimya received the “Zero Waste Certification” in 2020. These processes include sorting wastes at the source, holding them in our temporary storage areas, evaluating the options for recycling/disposal, and sending them to licensed facilities.

According to the PH.094 Waste Management procedure, we collect the hazardous, non-hazardous and recyclable waste generated as a result of our production operations and services, sort it at the source and dispose and/or recover the waste stored in temporary waste storage areas. The waste is recorded in the FPH.094-02.00 Hazardous/Non-hazardous Waste Monitoring Form by the related Waste Field Officer/Employee and monitored under the responsibility of our Environmental Experts.

## **Water Pollution Control Management**

We manage and control the following according to the PH.106 Wastewater Management procedure which has been drawn up as per Water Pollution Control Regulation: domestic wastewater from various points such as lavatories, toilets and dining halls across our facilities; industrial wastewater generated in our production units as a result of processes and activities, such as tank washing and surface washing; contactless cooling water used for cooling purposes at Polisan Kimya and Poliport Kimya, Reverse Osmosis (RO) Facility wastewater and rainwater drainage.

The wastewater sources and discharge points at which wastewater is analyzed and monitored by collecting samples at the intervals set according to the Wastewater Control Regulation are as follows:



| Wastewater Source                               | Discharge Points/ Receiver               |
|---|--|
| Domestic Wastewater                             | DOSB Wastewater Treatment Facility       |
| Industrial Wastewater                           | Industrial Wastewater Treatment Facility |
| Cooling Water                                   | Dilderesi Creek                          |
| Port Facility Wastewater                        | Marmara Sea                              |
| Reverse Osmosis Facility Wastewater             | Marmara Sea                              |
| Rainwater                                       | Marmara Sea and Dilderesi Creek          |
| Industrial Wastewater Treatment Plant at GEBKİM | GOSB Connection Line                     |



We have installed a Real-time Wastewater Monitoring System at the Polisan Kimya cooling water discharge point in accordance with the Communique on Continuous Wastewater Monitoring to ensure that pH, dissolved oxygen, temperature and conductivity parameters can be monitored on a 24-hour basis by the Ministry of Environment and Urban Planning.

Our wastewater treatment plants have been operated compliant with DOSB and GEBKİM discharge limits.

Full compliance has been achieved with the Marmara Sea Basin Action Plan published by the Ministry of Environment and Urbanization, to prevent mucilage pollution in the Marmara Sea.

We harvest rainwater in GEBKİM facility from the building roofs. We perform the filtration and physical treatment of rainwater to provide 100% of irrigation water for landscaping.

## Air Pollution Control

### Emission Sources

At our Dilovası Facilities;

- 14 smokestacks at Polisan Kansai Boya
- 12 smokestacks at Polisan Kimya
- 6 smokestacks at Poliport Kimya

### Emission Treatment Methods

- Polisan Kansai Boya; Dust Filtration, Off-Gas Treatment
- Polisan Kimya; Off-Gas Treatment
- Poliport Kimya; Nitrogen Blanketing, Scrubber, Spray System, Activated Carbon Tank Breather System

### Emission Report Details

We renew the emission measurements at the intervals set by the Ministry of Environment and Urban Planning. We have measurements taken at the related smokestacks and perform calculations for the raw material tanks in the EPA Tanks software. At the same time, we renew the emission measurements (passive measurements) taken at the related points across Polisan Kimya and Poliport Kimya facilities at the intervals set by the Ministry of Environment and Urban Planning.

### Carbon Footprint Reporting

Since 2012, we have been voluntarily conducting scope 1 and scope 2 carbon footprint calculation, monitoring and reporting activities according to ISO 14064. We began to support these efforts with the ISO 50001 Energy Management System in 2014. Our 2017 Corporate Carbon Footprint Report has been verified as having "reasonable assurance" within the framework of ISO 14064-3 international standard by an independent third-party accredited institution.



Voluntarily, we are providing declarations to the Carbon Disclosure Project (CDP) Climate Change since 2017. We integrated Scope III carbon emissions for our disclosures in 2020.

*Main Documents;*

PH.094 Waste Management Procedure  
FPH.094-02.00 Hazardous/Non-hazardous Waste Monitoring Form  
PH.106 Wastewater Management Procedure  
PH.102 Emission Management Procedure  
SH.006 Environmental Monitoring and Measuring Process Workflow Plan  
TL.005 Waste Pools Cleaning Instructions  
TH.013 Waste Field Operation Instructions  
TH.191 Industrial Wastewater Treatment Plant Operation System Instructions  
TH.207 Wastewater Parameters Analysis Instructions  
FPH.094-04.00 Waste Disposal Plan

*Related Clause:* ISO 14001:2015 Clause 9.1

## **Operational Planning and Control**

We are undertaking a number of control activities depending on the nature of our operations, risks and opportunities, key environmental aspects and compliance obligations.

As per TH.008 HSE Critical Material Procurement Instructions, we are looking for alternatives to replace those materials that fall into the scope of critical and hazardous materials and selecting and using materials with less environmental impact and less of an effect on the health of employees. The substances specified in the FTH.08-01.00 List of Prohibited Chemicals are imported and used under the control of our procurement and R&D units according to the Communique on Chemicals Controlled for Environmental Protection. Commissioning of new processes is done and/or health, safety and environmental assessments for machinery, equipment and chemicals are managed by all related process owners according to PH.047 Technical Change Management Procedure.

*Main Documents;*

TH.008 HSE Critical Material Procurement Instructions  
PH.047 Technical Change Management Procedure  
FTH.08-01.00 List of Prohibited Chemicals  
PH.031 Assessment of Subcontractors Procedure

As per PH.045 Subcontractor Management Procedure, we evaluate and guarantee the competency of our subcontractors with audits as well as related administrative and technical controls carried out before, during and after work to meet the requirements of the environmental management system.

*Main Documents;*

PH.045 Subcontractor Management Procedure  
FPH.045-01.00 Subcontractor Field Audit Form  
FPH.045-02.00 Pre-work Performance Evaluation Form for Polisan Holding Subcontractors  
FPH.045-03.00 Post- Work - Periodic Performance Evaluation for Polisan Holding Subcontractors  
FPH.045-04.00 Occupational Health, Safety, Environment and Energy Protocol between Polisan and Subcontractors  
FPH.045-05.00 Subcontractor Status Assessment Form  
FPH.045-06.00 Pre-Work Risk and Environmental Aspect Analysis Form  
FPH.045-07.00 Subcontractor Material Recording Form

With FPH.032-02.00 General Procurement Requirements, we establish certain requirements that must be met by suppliers. For example, suppliers must meet the requirements of the health, safety and environment legislation as well as the requirements that are set forth in the laws and regulations and other requirements associated with the quality certificates that they might have.

We expect and encourage our suppliers to "select sustainable resources that protect human health and the environment when supplying raw materials and other chemical substances and provide the related certificates (such as FSC, EU Ecolabel, Energy Start, etc.)" as per PH.ILK.001 Polisan Holding Code of Business Ethics and Conduct for Suppliers.

*Related Clause:* ISO 14001:2015 Clause 8.1

## **Internal Audit Program**

With the audit programs executed on an annual basis through the QDMS system, we are continuously improving our environmental management system and monitoring and reporting on compliance with the requirements and terms of the standard in an objective manner.

As specified in FTH.228-01.00 HSE Field Audit Form, we carry out certain checks under categories such as wastewater ducts, waste management/chemical spillage and emissions.

### *Main Documents;*

PH.027 Polisan Holding Internal Audit Procedure

TH.228 HSE Field Audits Instructions

PH.059 Polisan Holding 5S Practices Procedure

FPH.027-10 Polisan Kimya Greenhouse Gas Monitoring and Reporting Internal Audit Question List

*Related Clause;* ISO 14001:2015 Clause 9.2

## **Non-Compliance and Corrective Action**

In the event of non-compliance, we check and correct the non-compliance and evaluate the results in our Corrective and Preventive Actions system. We conduct root cause analyses to prevent recurrence of the non-compliance and when necessary, update the risks and opportunities of the related processes.

### *Main Documents;*

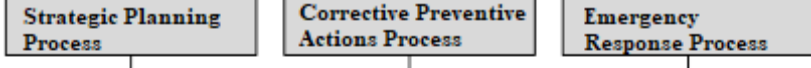
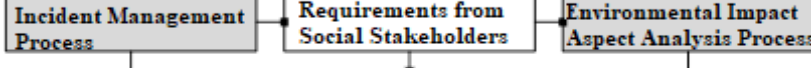
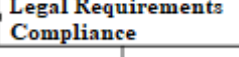
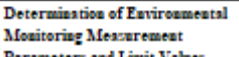
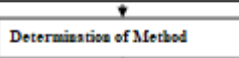
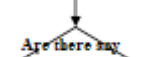
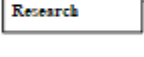
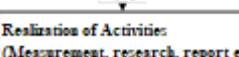
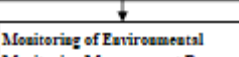

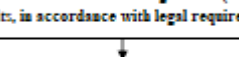
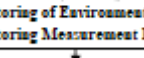
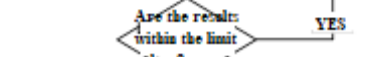


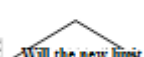
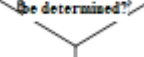

PH.025 Corrective and Preventive Actions Procedure

PH.108 Process Risks and Opportunities Management Procedure

PH. QDMS.02 QDMS Corrective and Preventive Actions User Guide

*Related Clause;* ISO 14001:2015 Clause 10.2

SH.006 Environmental Monitoring and Measuring Process Workflow Plan

| Document | Flow   | Responsible Person   |
|----------|--|----------------------|
| PH.025   |    | HSE MANAGER          |
| PH.034   |    | HSE MANAGER          |
| PH.028   |     | ALL UNITS            |
| PH.028   |     | HSE MANAGER          |
| PH.028   |     | HSE MANAGER          |
| PH.028   |     | HSE MANAGER          |
| PH.028   |    | HSE MANAGER          |
| PH.028   |   | ENVIRONMENTAL EXPERT |
| PH.028   |   | ENVIRONMENTAL EXPERT |
| PH.028   |  | ENVIRONMENTAL EXPERT |
| PH.028   |   | ENVIRONMENTAL EXPERT |
| PH.028   |   | ENVIRONMENTAL EXPERT |
| PH.028   |   | ENVIRONMENTAL EXPERT |
| PH.028   |  | ENVIRONMENTAL EXPERT |
| PH.028   |   | HSE MANAGER          |
| PH.028   |   | HSE MANAGER          |
| PH.028   |   | HSE MANAGER          |
| PH.028   |   | HSE MANAGER          |