

Isando Foods (Pty) Ltd.			
Author:	Marie Swanepoel	Document No:	HSE_8.1_P_01_ENV_E MP
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ENVIRONMENTAL MANAGEMENT PLAN

1. CONTEXT OF THE ORGANISATION

Isando Foods (Pty) Ltd was founded in 1995 and is a subsidiary of the Willowton Group. Isando Foods (Pty) Ltd produces refined sunflower seed and soya bean oil, sunflower and soya meal for animal feed and bottle triple refined oil product for the consumer markets. In addition, the company store baking fats, candles and soaps for distribution to our customers received from our factory in Pietermaritzburg.

1.1 Internal Issues

Isando Foods operates a high-risk manufacturing environment that includes boilers, extraction systems, chemical off-loading points, wastewater production, and hazardous chemical storage. Internal conditions influencing the Environmental Management Plan (EMP) include:

Operational Realities

- Use of hazardous chemicals such as hexane, LO10, caustic and boiler additives.
- Processes that present pathways for air, soil and water contamination.
- Wastewater that must comply with municipal discharge requirements.
- Hazardous and general waste streams requiring strict segregation and traceability.
- Equipment whose failure may result in environmental releases (e.g., pumps, hoses, fuel lines).
- Housekeeping and bund integrity issues that directly influence environmental exposure.

Systems and Process Factors

- Multiple checklists, registers and inspection tools used to maintain environmental controls.
- Integration of the Crisis Management Manual which dictates emergency escalation procedures.
- Documented maintenance processes influencing emissions and effluent quality.
- Employee behaviour, training levels, and awareness impacting environmental performance.

1.2 External Issue

Environmental factors outside the organisation that influence EMS performance include:

Regulatory Environment

- National environmental legislation and regulations.
- Municipal by-laws governing wastewater discharge, stormwater protection and waste.
- Active municipal monitoring and enforcement.

Geographical and Community Factors

- Neighbouring businesses sensitive to noise, odours, spills or airborne releases.
- Public expectations, community complaints and media interest in high-visibility incidents.

Emergency Response Environment

- Availability and response time of fire services, spill contractors and authorities.
- Requirements to notify authorities such as Local Municipality, Air Pollution Control, and Water Services.

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1.3 Interested Parties

Interested Party	Needs and Expectations
Employees	Safe working conditions, training, PPE, early warning systems
Contractors	Clear environmental rules, induction, hazard information
Ekurhuleni Municipality	Compliant effluent discharge, spill control, reporting
Neighbouring Sites	Prevention of noise, odour and spill migration
Fire Department	Clear access, rapid notification, accurate information
Customers	Business continuity, responsible environmental practices
Regulatory Authorities	Full legal compliance and reporting
Community	No nuisance, no environmental harm

1.4 Scope of the EMP

The EMP applies to all operations at **Isando Foods**, including:

- Off-loading of chemicals (hexane, LO10)
- Boiler operation and emissions
- Waste handling and storage
- Effluent generation and discharge
- Stormwater systems
- Cleaning and sanitation procedures
- Maintenance activities
- Emergency response and crisis incidents

Third-party activities on site fall within scope.

2. LEADERSHIP:

2.1. Environmental Commitment

Top Management demonstrates commitment by:

- Ensuring compliance with applicable environmental legislation.
- Integrating environmental controls into business strategy and operations.
- Providing resources for spill prevention, monitoring and training.
- Ensuring accountability across all departments and contractors

2.2. Environmental Policy

The environmental policy supports pollution prevention, continual improvement, emergency preparedness, legal compliance and responsible resource use.

2.3. Roles, Responsibilities and Authorities

Environmental responsibilities are clearly defined across leadership, SHE personnel, supervisors, operators, maintenance, contractors, and crisis response teams.

Role	Key Responsibilities
General Manager (Crisis Controller)	Leads environmental crisis response; approves EMS resources; ensures reporting to Head Office and authorities.
SHEQ Manager	Maintains EMS, legal register, inspections, training, environmental monitoring; coordinates emergency response.

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Supervisors	Perform inspections; enforce controls; escalate deviations; ensure operator compliance.
Operators	Apply operational controls; report spills and deviations immediately.
Maintenance	Repair defects effecting environmental performance; close-out corrective actions.
Security Manager	Controls access, assists in crisis activation, communicates with emergency services.
Contractors	Comply with induction requirements; maintain clean and safe work areas; report environmental deviations.

The crisis responsibilities from the Crisis Management Manual are integrated under Section 5.8.

3. PLANNING:

3.1. Environmental Aspects and Impacts

Aspect	Impact	Controls
Chemical off-loading (hexane, LO10)	Soil, air and stormwater contamination; fire risk	Checklists, grounding, spill kits, bunds, driver supervision
Boiler operation	Air emissions, wastewater contamination	Blowdown controls, leak inspections, combustion efficiency
Effluent discharge	Non-compliance with municipal limits	Sampling, monitoring, corrective action
Stormwater	Migration of contamination off-site	Good housekeeping, spill prevention, drain protection
Noise	Disturbance to neighbours	Maintenance of fans/compressors, complaint register
Waste handling	Soil/groundwater contamination	Segregation, storage controls, legal waste contractor use
Energy consumption	Increased environmental footprint	Preventive maintenance, monitoring

3.2. Compliance Obligations

The organisation adheres to national environmental laws and municipal by-laws without listing numeric limits, maintaining legal registers and compliance procedures.

3.3. Risk and Opportunity

Environmental risks include spills, emissions, effluent deviations, equipment failure, and stormwater contamination. Opportunities include improved bunding, enhanced off-loading controls, and optimised sampling.

Risks include:

- Stormwater contamination
- Effluent non-conformances
- Hazardous Chemical leaks
- Noise complaints
- Crisis events requiring evacuation or external reporting

Opportunities include:

- Improved bunding
- Upgraded sampling accuracy

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- Better off-loading procedures
- Energy efficiency improvements

3.4. Environmental Objectives and Targets

Objectives focus on:

- Zero significant environmental incidents
- Improved compliance trend
- Reduced spills
- Improved training completion rates
- Enhanced crisis readiness

4. SUPPORT

4.1. Resources

Isando Foods ensures appropriate environmental resources are available to implement, maintain, and improve the EMS.

Resource	Purpose
Spill kits (HSE_9.1.2_R_11_00)	Immediate spill containment readiness
Bunded storage areas	Prevents soil and groundwater contamination
Emergency equipment (HSE_9.1.2_R_54_00)	Supports fire, evacuation and spill response
Effluent sampling equipment	Compliance monitoring
PPE for chemical handling	Exposure prevention
Monitoring instruments	Inspections, measurements and recordkeeping
Crisis Management infrastructure	Control room, communication systems, crisis logs

These resources must remain functional, accessible and documented in monthly inspections.

4.2. Competence

Employees influencing environmental performance must be competent based on:

- Training
- Qualification
- Experience

Environmental training covers:

- Aspects and impacts
- Hazardous chemical handling
- Spill response
- Waste segregation
- Stormwater protection
- Emergency procedures
- Crisis Management Manual awareness for relevant staff

Competence is verified through:

- Checklist quality
- Behavioural observations
- Emergency drill performance
- Audit outcomes

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4.3. Awareness

Employees must understand:

- The environmental policy
- Significant aspects relevant to their tasks
- Their roles in preventing pollution
- Consequences of non-compliance
- Crisis escalation and internal communication lines

Awareness is reinforced through toolbox talks and supervisor briefings.

4.4. Communication

Internal Communication

- Supervisors communicate inspection findings and corrective actions.
- Crisis alerts follow the Crisis Communication Procedure.
- Clarity between SHE, production, engineering, maintenance, and security is maintained through established channels.

External Communication

- Regulatory reporting (effluent exceedances, spills beyond boundary).
- Public or neighbour complaints recorded in the Environmental Complaints Register.
- Emergency services activated according to Crisis Management Manual procedures.
- Media communication restricted to authorised spokespersons only.

4.5. Documented Information

The EMS maintains procedures, registers, monitoring results, training records, audit reports, crisis logs, and improvement plans.

5. OPERATION:

Isando Foods establishes operational controls proportionate to the environmental risks identified. Controls include:

5.1 Operational Planning and Control

Operational controls ensure environmental risks are reduced. Chemical off-loading, boiler operations, waste handling, and stormwater protection have defined procedures.

5.2 Chemical Off-loading Controls

Hexane and LO10 off-loading follow formal checklists ensuring grounding, leak prevention, spill readiness, and driver compliance.

5.3 Spill Prevention and Pollution Controls

Monthly inspection of spill kits ensures immediate readiness. Bund walls are inspected monthly for cracks, contamination, and plug integrity.

5.4 Stormwater and Effluent Controls

Stormwater systems must remain clean and free from contamination. Effluent discharge must comply with municipal standards. Monitoring supports early detection of deviations.

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5.5 Waste Management

Hazardous and general waste are segregated and stored securely. Only licensed contractors remove waste from site.

5.6 Contractor Control

Contractors receive environmental induction and are monitored for compliance.

5.7 Change Management

Any new process, layout, equipment, or chemical must undergo environmental screening.

5.8 Integrated Crisis and Emergency Preparedness

The Crisis Management Manual is integrated into the EMS and EMP. It defines communication flows, crisis escalation, emergency roles, and response processes for fires, explosions, ammonia leaks, hexane emergencies, bomb threats, environmental incidents, and major spills. Logs, media controls, and communication procedures ensure a coordinated response.

6. OPERATION:

6.1 Monitoring, Measurement, Analysis and Evaluation

Isando Foods evaluates environmental performance using structured monitoring activities. These support compliance, trend analysis and continual improvement.

Monitoring Area	Method	Frequency	Responsible
Spill kit readiness	HSE_9.1.2_R_11_00	Monthly	HSE
Bund wall integrity	HSE_9.1.2_R_54_01	Monthly	Maintenance / HSE
Chemical off-loading controls	R_20_03 / R_51_00	Per delivery	Supervisor
Boiler house leaks and pollution	Boiler House Register	Daily / Weekly	Production / Engineering
Effluent compliance (general limits only)	Sampling & laboratory	As per municipal schedule	HSE
Stormwater contamination risks	Visual inspections	Weekly	Supervisors
Noise complaints	Complaints Register	As received	HSE
Waste management	Storage checks & disposal records	Weekly / Monthly	HSE
Crisis readiness	Drill performance	Annual	HSE + Crisis Committee

6.2 Internal Audit

Internal audits verify:

- Legal compliance
- Effectiveness of operational controls
- Alignment with the Crisis Management Manual
- Status of corrective actions

Audits use defined checklists and must be performed by competent, independent auditors.

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Audit findings are categorised into:

- Major non-conformance
- Minor non-conformance
- Observation
- Opportunity for improvement

Corrective actions must be documented, assigned and closed out.

6.3 Management Review

Management reviews evaluate environmental performance, audit outcomes, objectives, resource needs, and improvements

7. IMPROVEMENT:

7.1 Incident, Non-Conformance

Environmental incidents include:

- Spills
- Effluent deviations
- Uncontrolled emissions
- Stormwater contamination
- Chemical releases
- Fire, explosion or gas leak events

These may also trigger crisis escalation procedures.

7.2 Corrective Action Process

1. **Identify** the deviation using:
 - NCR Report
 - Crisis logs
 - Audit reports
 - Inspections
 - Complaints register
2. **Contain** the environmental impact.
3. **Determine root cause** (technical, behavioural, systemic).
4. **Implement corrective action**, assigned with deadlines.
5. **Verify effectiveness** during follow-up inspections.
6. **Document evidence** for audits and management review.

Repeat deviations trigger formal root cause investigations and possible procedural revisions.

7.3 Continual Improvement

Improvement opportunities identified from:

- Internal audits
- Crisis drills
- Emergency incidents
- Community feedback
- Management review decisions

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Common improvement actions include:

- Bund upgrades
- Flow diversion improvements
- Spill kit expansion
- Refinement of off-loading procedures
- Enhanced training sessions
- Better communication tools
- Drainage improvements
- Noise reduction measures

Annexure A – Environmental Aspects & Impacts Summary

Aspect	Impact	Controls	Responsible
Hexane off-loading	Soil & water contamination; vapour ignition	Checklist, grounding, bunding, spill kits, Crisis Plan	Production / SHE
LO10 delivery	Hydrocarbon contamination	Checklist, fire readiness, containment	Production / SHE
Boiler blowdown	Effluent contamination	Blowdown controls, maintenance	Engineering
Effluent discharge	Municipal compliance failure	Sampling, analysis, corrective action	SHE
Stormwater	Off-site contamination	Housekeeping, spill protocols	Supervisors
Noise	Community disturbance	Maintenance, complaint logs	SHE
Waste handling	Ground contamination	Segregation, labelling, licensed transport	SHE

Annexure B – Summary Legal Register (General)

Law / By-law	Application Area
National Environmental Management Act	Duty of care, reporting, spill management
Waste Act	Hazardous waste handling & transport
Air Quality Act	Boiler emissions, fugitive vapours
Water Services Act	Effluent discharge requirements
Municipal By-laws	Stormwater, drainage, waste permits

Annexure C – Environmental Monitoring Matrix

Parameter	Tool	Frequency	Owner	Record
Effluent quality	Sampling	As per municipal schedule	HSE	Lab reports
Stormwater risk	Visual inspection	Weekly	Supervisors	Checklists
Bund integrity	Inspections	Monthly	HSE/Maintenance	Bund Register
Spills	Spill kit uses, reports	As needed	HSE	Incident Reports
Waste	Storage & disposal	Weekly	HSE	Waste Register

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Annexure D – Emergency Equipment Matrix

Equipment	Location	Frequency	Checklist
Spill kits	Production, off-loading points	Monthly	R_11_00
Fire extinguishers	Across site	Monthly	Fire Register
Emergency hut inventory	Crisis centre	Monthly	R_54_00
PPE	Stores	Monthly	PPE Issue Sheet

**Annexure E – Crisis Roles and Responsibilities Table
(Integrated from Crisis Manual)**

Role	Responsibilities
Crisis Controller	Full command, notifications, strategic decisions, communication control
SHE Manager	Emergency coordination, authority notifications, environmental assessment
Security Manager	Site access, alarm activation, call-outs, log support
Factory Engineer	Equipment isolation, critical information, emergency power
Production Managers	Technical insights, evacuation, staff accountability
Admin Assistants	Crisis logs, calls, documentation, communication support

Annexure F – Environmental Complaints Register (Template)

Date	Complainant	Issue	Source	Action Taken	Verification
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Annexure G – Integrated Crisis Communication Flow**High-Level Flow:**

Crisis → General Manager → CEO → Board (if required) → Emergency Services → Authorities

Site-Level Flow:

Discoverer → SHE/Security → Crisis Controller → Crisis Committee → Evacuation & Response
(Integrated from Crisis Manual pages 4–6)

Annexure H – Emergency Response Protocols (Summary)**Based on full Crisis Manual content:**

- Fire or explosion
- Hexane emergency (Code Red/Orange)
- Ammonia leak
- Spill to environment
- Major environmental incident
- Media engagement
- Fatality/serious injury (environmental relevance for reporting)

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