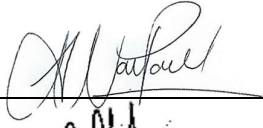


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|---------------|------------------|------------------|-------------------|
| Author        | M. Swanepoel     | Document No.     | SHE_8.1.6_P_01_03 |
| Approved      | M. Dougall       | Document Rev. No | Rev.03            |
| Date of Issue | 03 February 2026 | Rev. Date        | 01 February 2027  |

## HSE 8.1.6

### WASTE MANAGEMENT PROCEDURE

| Revision | Details                    | Date       |
|----------|----------------------------|------------|
| 00       | Developing Procedure       | 05.02.2025 |
| 01       | Format Change              | 30.06.2025 |
| 02       | Responsible Person updated | 21.10.2025 |
| 03       | Full Procedure Update      | 03.02.2026 |

| APPROVAL - SUSTAINABILITY AND ADEQUACY |                                                                                     |      |                  |
|----------------------------------------|-------------------------------------------------------------------------------------|------|------------------|
| HSE Manager                            |  | Date | 03 February 2026 |
| General Manager                        |  | Date | 03 February 2026 |

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# WASTE MANAGEMENT PROGRAM

## ISANDO FOODS (PTY) LTD

### 1. Purpose

The purpose of this procedure is to identify the various waste streams at Isando Foods and the correct disposal of its solid waste according to the Municipal Solid Waste By-Laws. Limiting the effect that our waste will have on the environment, through reducing of waste, recycling, recovering, treating and safe disposal

### 2. Standard Requirements

- 2.1 Applicable standards for the management of waste.
- 2.2 Detailed Company Profile
- 2.3 General Site Description that details waste generation areas.
- 2.4 Method of waste generation. (Process flow)
- 2.5 The type of waste generated. (Waste streams)
- 2.6 Detail possible Environmental impacts / incidents from our activities and how those impacts are mitigated and reported.
- 2.7 Waste storage areas. (Layout map and photographs)
- 2.8 Short description of training interventions / programs offered to personnel managing companies' waste management matters. (Name of programs)
- 2.9 Name and contact details of service providers.

### 3. Scope

The procedure covers legal and other requirements for the handling, storing and disposal of solid and other waste generated at the Isando Foods Plant.

### 4. Applicable standards for the management of waste.

- 4.1 ISO 14001:2015
- 4.2 National Environmental Management: Waste Act, 2008. (Act No.59 of 2008)
- 4.3 National Environmental Management: Waste Act 2008. (Act No.59 of 2008) – Waste classification and Management regulations R634 Government Notice 36784 vol 578.

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- 4.4 National Environmental Management: Waste Act 2008. (Act No.59 of 2008) – National Norms and Standards for Disposal of Waste to Landfill R636 Government Notice 36784 vol 525.
- 4.5 National Environmental Management: Waste Act 2008. (Act No.59 of 2008) – List of Waste Management activities that have or are likely to have a detrimental effect on the environment, Government Notice No.32368 vol 718.
- 4.6 Ekurhuleni Metropolitan Municipality – Solid Waste By – Laws (Council Resolution MI192/2001 of 29 November 2001).

## 5. Definitions of Waste Categories.

**Waste means any substance**, whether that substance can be reduced, re – used, recycled or recovered.

- 5.1 That is surplus, unwanted, rejected, discarded, abandoned, or disposed of,
- 5.2 Which the generator has no further use of for the purpose of production,
- 5.3 That must be treated or disposed of, or
- 5.4 That is identified as waste by the Minister by notice in the gazette, but
- 5.5 A by – product is not considered waste, and
- 5.6 Any portion of waste, once reduced, recycled, and renewed ceases to be waste.

## 6. Hazardous waste

Means any waste that contains organic or inorganic elements or compounds that may owing to the inherent physical, chemical or toxicological characteristics of that waste, have a detrimental impact on health and the environment.

## 7. Industrial Waste

Means waste in solid form generated because of manufacturing, maintenance, fabricating or dismantling activities including waste of this nature which is generated from a residential premises because of a business activity, regardless of whether the activity is being lawfully conducted from those premises, but does not include building waste, business waste, domestic waste or special industrial waste.

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## 8. Recyclable Waste

Means any waste intended for recycling or a re – manufacture process and which is separated from other waste and managed as a potential resource by the waste generator or someone acting on his or her behalf.

## 9. Waste separation

All waste generated at the Isando plant is separated in the following categories:

- 1) Cardboard
- 2) Plastic bottles
- 3) Shrink-wrap
- 4) Boiler coal ash – Hazardous Waste
- 5) Winterized waste – Hazardous waste
- 6) Bleaching Clay – Hazardous waste
- 7) Scrap steel
- 8) General Waste from offices and plant.

## 10. Detailed Company Profile

The Isando Foods factory is a subsidiary of the Willowton Group and is based at 21 and 14 Quality Road Isando Kempton Park. The main function of the plant is to manufacture cooking oil from sunflower and soya seeds. We distribute the cooking oil in bulk and packed form, to various consumers.

After the extraction process of the oil the sunflower and soya meal that is generated is a by – product which is stored and sold as cattle feed. This product is purchased and collected by various farmers and Sea Bord for the purpose of enhancing their current feeding programs.

Our raw material is the sunflower and soya seeds purchased from various silos across the country and imported when there are shortages in the local supply chain. The seeds are transported to our site from the silos or harbour by means of road transport. On receiving, the seed is offloaded into a hopper and conveyor system which transfers the seed to our silos on site.

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On receiving of the seed, the production process is put in motion starting with the crushing plant where the husk is removed and separated from the seed itself after which the seed is conditioned and put through an expeller to remove the first part of the oil mechanically, this is sent to the crude oil storage tanks. The cake which is formed during this process is sent to the solvent extraction plant where the balance of the oil is removed through a chemical extraction process. The oil recovered is sent to our crude oil storage tanks from where it will be pumped to our refinery. The cake is now sent to our bunker for storage from where it is loaded and dispatched to our customers.

The refinery is where the oil is refined until it is suitable for human consumption. The process of refining starts with de-gumming followed by bleaching, winterising and deodorizing which is the final step in the refining process. The deodorized oil is sent to the deodorised storage tanks to cool down before it is sent to the bottling plant for packing and distribution. Bulk refined oil is also distributed by truck to large manufacturers which uses the refined oil in the manufacturing of their own products.

## **11.General site description detailing waste generation areas.**

### **5.1 SEED RECEIVING.**

Soya seed is received from various silos and is delivered by road transport. On receipt of the seed trucks, they are weighed at our weighbridge. The weighed truck proceeds to the seed offloading bay where the seed is offloaded into a hopper and by conveyor system is sent to seed cleaning. From seed cleaning the clean seed is sent to our silos for storage. The dry leaves and twigs mixed with the Soya seed is milled by hammer mill and fed back into the soya hulls. The hulls are sold to various farmers and groups for use in animal feeds. **(No solid waste generated during this process).**

### **5.2 CRUSHING PLANT.**

From our silos the seed is sent to the decortication plant where the seed is weighed. Once the seed is weighed it is sent to de - hulling where the hulls are broken and removed at the first stage separator. The hulls removed from the seed are sent to the hulls store by a conveyor system for storage. The stored hulls are milled by

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hammer mill and pressed into pellets the pellets are stored in 1 ton hessian bags inside our warehouse and sold to various farmers for animal feed.

The meats are sent to the meats bin after it is weighed. From the meats bin the seed is send for conditioning followed by the flaker rollers, cooker and then to expelling where the first crude oil is extracted. The crude oil extracted is send to a crude oil storage tank. The seed that is pressed together during this process forms a cake which is send by conveyors to the solvent extraction plant. **(No solid waste generated during this part of the process).**

### 5.3 SOLVENT EXTRACTION PLANT.

From the expellers the cake is send to the extractor in the solvent plant where hexane is added to the cake extracting the oil from the cake. There is two process paths followed from here. The cake after oil extraction is send to a toaster followed by a dryer after which the cake is send to the bunker storage area from where bulk loading to our customers takes place.

The second part of the process is where the rich miscella is send for distillation and after distillation is send to our crude oil storage tanks.

From the crude oil storage tanks, the oil is sent to a mixing tank where water and citric acid is added before it is sent to a separator for the removal of the gums from the oil. The de gummed oil is sent to storage for refining. **(There is no solid waste generated at this point).**

### 5.4 REFINERY.

Our refinery draws crude oil from various crude oil storage tanks at our tank farms into a storage tank inside the refinery from where the refining process starts with de-gumming, during this process all the gums is removed from the oil. The gums are stored in gums storage tanks from where it is re- used. The bleaching operation follows directly after de-gumming where some of the colour is removed, reduces the contents of chlorophyll, residual soap and gums also trace materials, oxidation products and directly impacts on deodorised oil colour. **(This is the 1<sup>st</sup> point of solid waste generation).** The bleaching clay which is used in the bleaching process is discarded and dropped into 7-ton skips inside the refinery from where it is moved to

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a storage area for safe disposal by Skip Waste as this is a hazardous product (spontaneous combustion).

The winterising process is next where all the waxes in the oil is removed by means of filtration. **(This is the 2<sup>nd</sup> point of solid waste generation)**. The winterised cake is dropped into 7-ton skips by means of shuts from where it is sent to our waste storage area. Ngumok waste transporter collect's and disposes of the winterised and bleaching waste as this is hazardous by - products.

After winterising the oil is sent to storage tanks from where it will be brought back into the plant for deodorizing. Deodorization is a stripping process in which a given amount of stripping agent (usually steam) is passed for a given period through hot oil at low pressure. Hence it is mainly a physical process in which various volatile components are removed. **(There is no solid waste at this point of the process)**.

## 5.5 BOTTLING PLANT

After deodorization the oil is send to storage tanks to cool down, once cooled down it is sent to storage tanks at our bottling plant for the final process of bottling. During the bottling process the oil is decanted into different size bottles as required by our customers. After the bottles are filled a cap is placed onto the bottle by a capping machine to seal the bottle of oil. The sealed oil is moved in line by conveyor to a packing station. After packing the box filled with oil is sealed and packed onto wooden pallets for distribution. **(This is the 3<sup>rd</sup> point of solid waste generation)**. All the caps, damaged bottles, labels, plastic wrapping and boxes is sent to the waste collection area behind the bottling plant, here all the different waste products are separated from each other and prepared for collection by FMP waste collectors daily.

## 5.6 BOILERS.

On our site we have four twenty-ton boilers to provide our plant with the necessary steam required for our production processes. **(This is the 4<sup>th</sup> point of solid waste generation)**. All our ash generated from the burning of the coal is dropped behind the boilers to cool down after which it is placed by HI – UP loader into 7-ton skips and sold to external parties.

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This is all the solid waste generation points in our plant.

**12.All waste streams identified and quantified. Due consideration is given to waste as preventable, recyclable and inherently hazardous.**

**12.1 WASTE STREAMS GENERATED**

- 12.1.1 Bleaching earth clay from bleaching process.
- 12.1.2 Winterized filter cake from winterizing process
- 12.1.3 Plastic bottles, caps and handles from bottling plant.
- 12.1.4 Cardboard boxes from bottling plant and warehouse
- 12.1.5 Shrink-wrap from bottling plant packaging.
- 12.1.6 Boiler coal ash from boiler house.
- 12.1.7 Scrap Metal from engineering works.
- 12.1.8 General waste from offices and factory.

**12.2 Husk /Hulls are generated** in the crushing plant during the de-hulling process. The husk / hulls are sent to the husk / hulls store for storage. The hulls or husk are milled into a fine product and compressed into pellets which are bought by farmers as a feed supplement as the husk / hulls is high in protein. The husk / hulls are biodegradable and not hazardous to the environment. Volumes produced is recorded on the statistics schedule

**12.3 The 1<sup>ST</sup> point of solid waste generation is** the spent bleaching earth used during the bleaching process for colour change, and other trace material removal, this is in a clay format and is classified as an Inherently hazardous material because of spontaneous combustion and removed to a hazardous material rework site for disposal. Safe disposal certificates are received monthly. The volumes are recorded on the monthly statistics schedule. SHE\_C\_8.1\_STATS\_R\_01\_00.

**12.4 The 2<sup>nd</sup> point of solid waste generation is** also in the refinery at the winterising filters where all the waxes are removed from the oil. The winterised cake is dropped in 7-ton skips for further rework before disposal at cooking plant. Once all oil was extracted it is sent to a safe disposal site for inherently hazardous material. Safe disposal certificates are received monthly. Volumes recorded on statistics schedule. SHE\_C\_8.1\_STATS\_R\_01\_00.

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12.5 **The 3rd point of solid waste generation is** at our bottling plant. Here cardboard boxes, plastic caps, labels, plastic wrapping, and plastic bottles are sent to the back of the bottling plant for collection by Ferrous Metal Processors for recycling. The various waste is separated for collection by product. Volumes are recorded on statistics schedule.  
SHE\_C\_8.1\_STATS\_R\_01\_00.

12.6 **The 4<sup>th</sup> point of solid waste generation is** at our boilers where the ash generated during the burning process is placed behind the boilers from where we place the ash in 7-ton skips with a HI -UP crane loader for removal to the Municipal dumping site. Ash is also sold to brick manufacturers.  
SHE\_C\_8.1\_STATS\_R\_01\_00.

12.7 **The 5<sup>th</sup> point of waste generation is engineering.** Scrap steel is generated threw replacement parts and the repairing of conveyor systems. Scrap steel is placed into a 7-ton skip and is collected by Ferrous Metal Processors for recycling. SHE\_C\_8.1\_STATS\_R\_01\_00.

12.8 **General waste generated** through the normal running of the business, administration, sweeping and cleaning, waste generated by staff.  
SHE\_C\_8.1\_STATS\_R\_01\_00.

### **13. How long is waste stored on site, (Wet and Dry seasons).**

Our waste is removed daily by our service providers. Our own skip truck is used for the removal of ash and general waste to the Municipal dumping grounds. Waste build up will not exceed one week during peak production times.

### **14. Bin Colour codes.**

- 1) Green skip – Plastic
- 2) Blue skip - Boxes / cardboard
- 3) Yellow skip - paper
- 4) Brown skip – Wood
- 5) Orange skip – General waste

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- 6) Black skip – Boiler coal Ash

## **15. Containers used for refuse storage and removal**

- 1) Isando Foods to ensure that there are enough 7 MT steel bins in good condition and adequate for the waste materials stored and removed daily.
- 2) Bins have lids or net covers to prevent waste from flying out of bins during storage or transportation for disposal.
- 3) Waste will be controlled on site by Isando Foods cleaning crew and waste collector for the relevant waste will be called a day in advance to remove full bins and replace with empty one.
- 4) Waste storage area to be cleaned daily and be kept in good order by the site cleaning crew.
- 5) Waste bins to be washed regularly and kept clean and in good hygienic order.
- 6) Storage area to be under roof and storage areas to be marked according to bins by waste category.

## **16. Hazardous waste storage and labelling**

- 1) Hazardous waste storage area to be demarcated and where possible access controlled.
- 2) Hazardous containers to be clearly marked and identified according to hazard rating and must be clear and complete.
- 3) Storage area must be bunded where required
- 4) Employees must be trained and updated on meaning of labels.
- 5) Medical waste to be separated from sharps or needles.
- 6) Hazardous containment area to be cleaned regularly and be under roof.

## **17. Transportation of Hazardous waste.**

- 1) Transporter transporting the hazardous waste between Isando Foods the waste generator and the waste rework site or landfill must be appointed in writing and his responsibilities clearly identified.
- 2) Waste manifest must be created for each load to be transported and be signed off by Isando Foods before delivery is made.

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- 3) Transporter to provide Isando Foods with safe disposal certificates and manifests at the end of each month for all the hazardous loads done.
- 4) Transporter to be provided with a SDS for the type and category of hazardous products transported from site.
- 5) Transporter must have in his vehicle a Hazchem placard to produce when requested.
- 6) Transporter must be provided with an emergency procedure on the handling and transporting of our hazardous product.

**18. Short description of training interventions / Programs offered to personnel managing companies waste matters. (Name of program)**

- 1) Internal Training on the job.
- 2) Workshop on Environmental Management Act & Associated Legislation – ABE Bosman Attorneys.
- 3) Prism Environmental Services – One day Workshop on site, requirements in handling waste.

**19. Detail possible Environmental impacts / incidents from your activities and how those impacts are mitigated and reported.**

- 1) Winterized waste and bleaching earth produced in the refinery have the properties for natural combustion in high temperature environment when stored. The risk is mitigated by mixing the two products together in a ratio of 3 to 1. Three parts of winterized waste to one part of bleaching earth clay. The product is then safe for disposal at a safe disposal site. The control is our manifest and safe disposal certificate from the waste removal contractor received monthly.
- 2) There were no incidents to date because of our activities, should we have an environmental incident we will follow the following procedure. (a) Report the incident to the Department of Environmental Services - Section 30 Alarm Notification. (b) An emergency incident report as required in terms of section 30(5) of NEMA as amended will be submitted to the relevant authorities. (c) when the contaminated site is cleaned the final Environmental site Assessment report will be done and submitted for evaluation by the relevant Environmental Authorities.
- 3) Stack emissions from the four 20MT boilers. The control method used is our annual stack emission sampling by Rayten Engineering to ensure the emissions

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are within the required specifications. Should there be any deviation corrective actions in the form of cleaning, adjusting boiler gasses and feed rate. We have also installed Chinco to improve the fire and complete burnout of our coal without affecting the stack emissions. The coal specification is also regularly evaluated against the sampling done by the supplier, we check CV values and fines. A regular cleaning program was introduced for the cleaning of our grit arrestors to reduce possible solid particle release into atmosphere.

## **20.Name and contact detail of service providers.**

- 20.1 Ngumok Holdings.  
Used for: Winterised cake and bleaching clay removal for safe disposal.  
Tel. 082 33 46512  
[admin@ngumokholdings.com](mailto:admin@ngumokholdings.com)
- 20.2 Ferrous Metal Processors.  
Used for: Cardboard, Scrap steel, all plastic and cardboard waste.  
Tel.011 917 8301
- 20.3 Ekurhuleni Metropolitan Counsel.  
Used for: General waste and ash.  
Tel: 011 975 4677/8.  
Fax: 086 622 6383.

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## 21.SCHEDULE OF RECORDS

| Title                                   | Responsibility | Retention Location | Retention Period | Authority for disposal |
|-----------------------------------------|----------------|--------------------|------------------|------------------------|
| Management Review Minutes               | SHE Manager    | SHE Office         | 3 Years          | SHE Manager            |
| Waste Management Program                | SHE Manager    | SHE Office         | 5 Years          | SHE Manager            |
| Safe Disposal Certificates & Manifests  | SHE Manager    | HSE Office         | 3 Years          | SHE Manager            |
| Hazardous waste Contractor - contracts  | SHE Manager    | HSE Office         | 3 Years          | SHE Manager            |
| Waste weigh bills / Collection receipts | SHE Manager    | HSE Office         | 5 Years          | SHE Manager            |
| Waste statistics – (Volumes)            | SHE Manager    | HSE Office         | 3 Years          | SHE Manager            |

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