



forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

RISK MANAGEMENT PLAN IN TERMS OF REGULATION 10 OF THE WASTE EXCLUSION REGULATIONS

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Risk Assessment for an application for exclusion of waste stream or portion of waste stream in terms of the National Environmental Management: Waste Act, 2008(Act No.59 of 2008), as amended.

Kindly note that:

1. This form is current as of 01 April 2021. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
2. The information must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing.
3. Incomplete forms (including information as required in the application form may be returned to the applicant for revision and the inclusion of additional information.
4. Unless protected by law, all information filled in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.

APPLICANT	Illovo Sugar (South Africa) (PTY) Ltd
CONTACT PERSON	SHERQ Officer: Environment & Risk
NAME	Nicole Geoffrey.
ADDRESS	1 Mill Road, Sezela, Pennington, Kwazulu-Natal. 4215
E-MAIL ADDRESS	NGeoffrey@illovo.co.za
TELEPHONE	General Mill Contact no: 039 975 8000 Tel: +2731 450 7821
CELL PHONE	+2778 496 9843

SOURCE (S) OF WASTE	Sludge from dewatering of Effluent Treatment Plant (ETP) sludge.						
WASTE TO BE BENEFICIATED	Sludge.						
GPS CO-ORDINATES AT CORNERS OF WASTE GENERATING FACILITY OR FACILITIES	Pin Locations	LATITUDE			LONGITUDE		
	A	30°	24'	39.12"S	30°	40'	25.64"E
	B	30°	24'	40.43"S	30°	40'	25.57"E
	C	30°	24'	39.67"S	30°	40'	23.49"E
	D	30°	24'	39.01"S	30°	40'	23.74"E
BENEFICIAL USE/S	Soil enhancer/fertilizer for farmers						

MSDS ATTACHED IF HAZARDOUS	YES	NO
WASTE GENERATING FACILITY	HAZARDOUS	GENERAL

RISK MANAGEMENT PLAN

Activity	Risk Description	Action(s) to minimise/manage the risk	Responsibility (Who is responsible to carry out the action(s))
<p>The following documents to be used in the management of the sludge:</p> <ul style="list-style-type: none"> • Report accompanying the application. • Safety data sheet of the sludge. • All waste management and pollution management systems in place. • ILLOVO Group Code of Conduct and Business Ethics. • An overarching ILLOVO SHERQ policy. 		<p>To ensure all relevant staff and all stakeholders that will be</p> <ul style="list-style-type: none"> • handling, • transporting, • storing, or • working with the sludge waste stream, <p>to be made aware of the safety data sheet its contents, how to read it and where to obtain it. Each party: generator, driver/owner, and recipient of the sludge, are to have the latest, legal copy of the safety data sheet. Training must be held for the contents and understanding of the contents for all relevant stakeholders. Illovo Sezela Sugar Mill (ISSM) must incorporate the safety data sheet into the waste management system and emergency management systems, and contents into the work instructions, together with training and include these into the induction program.</p>	<p>SHERQ manager and all relevant staff, contractors, drivers, farmer and farm workers.</p>
<p>Dewatered sludge and platform preparation by ISSM</p>	<ul style="list-style-type: none"> • Storage of the sludge producing 4 tons per day. • Current rate of removal per day would be planned to be all that which is generated per day. • Unwanted trespassers into the property to remove stored waste. 	<ul style="list-style-type: none"> • The platform preparation must allow for run-off back into the ETP dam only and not into the natural water course. • Allow easy access for vehicles to remove the sludge without spillages into the surrounding areas. • Allow for easy desludging process for dewatering back into the ETP Dam. • Be secure from illegal access. 	<p>ISSM</p> <ul style="list-style-type: none"> • Civil engineering. • SHEQ

	<ul style="list-style-type: none"> Spillage into outside sensitive areas. Hazard from heat and possible fire. 	<ul style="list-style-type: none"> Monitor the sludge use so that excess will not be on the platform unnecessarily, build up the trends to plan adequate dewatering of enough sludge over the planned time periods. 	
<p>Sludge removal on request.</p>	<ul style="list-style-type: none"> Storage over time and running out of dam storage space, if demand is low. Windblown dust if sludge is dry out completely. Risk of falling into the sludge dam 	<ul style="list-style-type: none"> To ensure no pollution occurs from this waste source or is managed should there be an incident. for the administration to record this activity: the quantity of waste, the frequency of waste removal and to whom the waste is being distributed to. The monitoring of the sludge demand must match the amount of sludge that is stored. This must not build up and cause an overflow into the environment Should there be circumstances that would reduce the removal rate of the sludge then the sludge dam level must be closely monitored to ensure this facility can cope with any overflow from the mill. The vehicle must be maintained to prevent any break-downs and down-time. Correct Safety and Warning signage to be clearly visible by those entering the area. Correct PPE to be worn at all times. To stay away from the sludge dam. To have eye wash bottles in the vehicles on site while working. The farmer's demand for the product would be co-ordinated with the season that the fertilization of the fields is happening and hence be coordinated with the supply, to prevent build-up of the material. 	<p>ISSM</p> <ul style="list-style-type: none"> Manager in charge of the storage area for the sludge, Manager responsible for the sludge dam and the SHERQ manager. Security Production manager. Farmer/vehicle workshop supervisor.
<p>Access to sludge/sludge storage area.</p>	<p>Security and safety:</p>	<ul style="list-style-type: none"> Retain security and access control at the gates. Correct signage at location 	<p>ISSM gate security</p>

	<ul style="list-style-type: none"> • Unauthorised access to the sludge area. • Unauthorised unmanaged removal of sludge. • Risk of accidents in the dam. 	<ul style="list-style-type: none"> • Patrols in the area to check from trespassers. • Checking for correct PPE. • Site induction covers the safety and health risks and requirements for entering the site. • Induction to be renewed every year. • The SDS is to be given to each farmer and worker. • Vehicle checks. <ul style="list-style-type: none"> ○ that safety equipment is in vehicle upon entering. • Security to check no overfilled vehicles when leaving. 	
<p>Process of transferring sludge to the receiving vehicles.</p>	<p>Health, safety and environment.</p> <ul style="list-style-type: none"> • Spillage onto area outside of protection area. • Splash onto personnel not authorised to be at the location. • Harm to unauthorised persons in the area. • Dust from low moisture/dried sludge. 	<ul style="list-style-type: none"> • The sludge has a relatively high moisture, thus the impact from dust is minimised. However, should there be any drying out of the sludge, then dust needs to be minimised by keeping the sludge moist. • Ensure that only the responsible personnel needed for the activity are in the area for the duration of the transfer. • Ensure correct PPE is used in the area as per SDS: appropriate <ul style="list-style-type: none"> ○ eye and face, ○ clothing, ○ gloves, ○ footwear and ○ respiratory <p>protection is worn that is appropriate to the dust that may be generated and anticipated splashing that may occur.</p> <ul style="list-style-type: none"> • Eye wash bottle in vehicles. • Careful management of the transfer of sludge to vehicles. • Procedure very clear for limit of vehicle load by weight and volume, to minimise on-site and off-site spillage. • Clean-up of storage area with each batch of sludge or at the end of each shift. 	<p>Manager responsible for waste and operations.</p>

		<ul style="list-style-type: none"> • Ensure the area is cleaned at the end of the working day to minimise the chance of any oil grease or other materials to contaminate the mixture and for heat build-up in any residue sludge.. • Clean up any litter and other materials that can contribute to the contamination of the sludge. • Have a clearly marked waste disposal area. 	
<p>Transporting of sludge to farm.</p>	<p>Health, safety, environment</p> <ul style="list-style-type: none"> • Spillage: <ul style="list-style-type: none"> ○ Overfilling receiving vehicle trailer with sludge ○ Road accidents which may result in spillages on the main and access roads. ○ Spillages of sludge which result in accidents. ○ Non –compliance to the ROAD TRAFFIC ACT (RTA): <ul style="list-style-type: none"> ▪ driving unsafe vehicle, ▪ Vehicle without correct placarding if load is hazardous. ○ Soil contamination. ○ Groundwater, stormwater and surface water contamination. ○ Affects the flora and local animals, domestic and wild as well as residents. 	<ul style="list-style-type: none"> • Ensure the driver is trained on the contents of the SDS and appropriate actions needed should an emergency arise. • Ensure vehicles are well maintained with service records available. • The condition of the vehicle is to be monitored by the owner to include: <ul style="list-style-type: none"> ○ regular maintenance, ○ driver reports for any concerns on the vehicle performance, • Security gate personnel to check the vehicle: <ul style="list-style-type: none"> ○ condition when entering the gate, ○ load in bin to ensure that there is minimum spillage on the journey. • Should there be any incident on the public road or on farm roads, an enquiry is to take place, to investigate whether any actions are needed. • Spillages to be cleaned up in accordance to the SDS protocols and that the sludge is returned into the bin. • ISSM hotline contact number (0800) clearly seen by outside persons affected by driver conduct or any incidents. • The placarding is clearly visible always on the vehicle. • Procedure for off-loading of sludge in the designated drop-off zones. 	<ul style="list-style-type: none"> • Owner of vehicle, • Driver supervisor, • Driver, • Security.

		<ul style="list-style-type: none"> • Protocol to ensure the off-loading vehicle driver knows the process for minimising the impact of the vehicle on the environment after completing the off-loading. • Driver to contact owner to clear up any spillages that occur on public roads or driver to clean up minor spillages. • Have a hotline for public complaints for sludge spillage and nuisance and register these on the SHE system. Address these with the responsible owner/driver. • Mill is not responsible for cleaning up spills, but must ensure that the owners of vehicles and drivers take responsibility for this. • Emergency procedures clearly outlined with issuing of the SDS for the implications of accidents and clean-up. • Vehicle to have appropriate equipment to deal with emergencies: Broom, spade, fire extinguisher - however driver must not be involved in firefighting of the load. • Clean-up protocols sufficient for clean-up to deal with the maximum loads including: <ul style="list-style-type: none"> ○ clean-ups, ○ SAFE disposal of waste from emergencies as per SDS. ○ barriers, ○ fires, ○ first aid if qualified. ○ injuries, ○ other. • Checks for correct driver emergency equipment and training to deal with the emergency. • Emergency numbers available for driver. • Vehicles to comply with all requirements for Road Traffic Act. • Vehicles to be placarded correctly as required.
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<p>Sludge off-loading onto farm designated area.</p>	<p>Spillage:</p> <ul style="list-style-type: none"> • Outside of designated area. • Depending on the offloading procedure, the offloading vehicle may spill residual sludge when travelling to other places to do work. • No applications or storage near residential areas or near water.. 	<ul style="list-style-type: none"> • Ensure that the sludge is still moist to reduce the potential of windblown dust nuisance. • Any run-off is redirected away from any natural water source. This can be prevented by ensuring the riparian zone on the water course is intact. • The protocol for spreading onto the soils would be the same as any commercial fertilizer and other soil additives for soil management. • Ensure correct and appropriate PPE is used. <ul style="list-style-type: none"> ○ Eye wash water bottles to be available on the operational vehicles. • From a cradle to grave perspective the Mill may be caretaker to ensure that no such fertiliser is offloaded or spilled in non-designated areas e.g. National road or entry point intersections or traverse areas. This is important to protect the Illovo brand. 	<ul style="list-style-type: none"> • ISSM agriculture • User of the sludge - farmer and supervisory staff.
<p>Storage at end user facilities</p>	<p>Environment</p> <ul style="list-style-type: none"> • Run off. • Windblown dust if sludge is allowed to dry. <p>Safety</p> <ul style="list-style-type: none"> • Unauthorised removal of material. • Sparks could cause the material to burn. • Natural biological processes causing heat build-up in the stored sludge body, this causing internal heat build - 	<ul style="list-style-type: none"> • As given above for off-loading protocols to prevent run-off contamination of natural water sources. • Unauthorised removal of material is minimised by the farmer's internal security service by preventing trespassing in the property. • Long term storage should not occur of this and equivalent materials. It should be applied over the prepared fields and be ploughed into the soils as soon as possible to dilute the sludge with the soil mix and thus prevent the hazard impacts and potential for fire that may affect health, safety and the environment 	<p>Farmer</p>

	<p>up and start smouldering possibly to set fire to surrounding sugar cane.</p>		
<p>Sludge management during distribution onto the intended farm soil as the fertilizer.</p>	<p>Health: Dust: There may be health impacts from working with the possibly dried sludge during the spreading of fertilizer operations. Wet sludge: splashing onto clothing and exposed areas of body.</p> <p>Environment:</p> <ul style="list-style-type: none"> • Correct rate of application adhered to prevent toxic salt build up in soils. • Any mixture run-off from the mixture spreading operations will affect the receiving environment if not managed correctly, especially near to natural water sources. • The SSV1 and 2 values from the guidelines for contaminated soils require that the sludge is not used in a way that will impact natural water sources, neither near residential or industrial areas. 	<ul style="list-style-type: none"> • All staff in the field are to be supplied with the correct PPE and trained for: <ul style="list-style-type: none"> ○ Health and safety impacts of the sludge, ○ application rates to prevent overdosing, ○ as well as correct placement within the area of the field. <p>This is to keep the sludge away from the possibility of run-off to cause pollution in the natural water sources. The same protocols would apply as to application of commercial fertilizer onto the fields.</p>	<ul style="list-style-type: none"> • Farmer, • Property owner, • Field staff, • Field supervisors:

<p>Repeat application onto the same fields.</p>	<p>Environment: The soils may have salinity and toxic component build up if the soils and application are not monitored</p>	<p>Ensure that the work is conducted under management of a qualified agronomist that the soil viability is retained, to prevent salinity build up and correct pH management, as well as other specific soil requirements to keep the crop healthy.</p>	<ul style="list-style-type: none"> • Farmer, • Property owner and • Field staff.
<p>Secondary waste generation</p>	<p>Environment:</p> <ul style="list-style-type: none"> • Sludge contaminating: <ul style="list-style-type: none"> ○ litter, oils, grease, as well as other items if the storage sites are not managed correctly. ○ wind-blown waste enters the sludge storage/dam. 	<ul style="list-style-type: none"> • Monitor any: <ul style="list-style-type: none"> ○ oil, ○ grease, ○ other waste stream spillages <p>that may contaminate the sludge waste.</p> <ul style="list-style-type: none"> • It includes the clean-up of litter. • Should there be a spill in the mill area: immediately isolate the spill and clean it up, together with any contaminated ash, filter cake and sludge. These contaminated streams are to be isolated and managed for as per SHEQ protocol. • Disposal is to be safe and legal. 	<p>ISSM:</p> <ul style="list-style-type: none"> • Waste manager and • SHEQ manager.
<p>Emergency responders</p>		<ul style="list-style-type: none"> • The SDS MUST be made available to these personnel, to be able to understand the requirements for their own protection and the management of any spill. • The drivers of the vehicles are to be trained in how to respond SAFELY to any incident involving the load and who to contact in the case of any emergency. • The driver must know: <ul style="list-style-type: none"> ○ The protocol to manage the incident: and who to contact: <ul style="list-style-type: none"> ▪ Owner, ▪ emergency responders – fire, and medical. ○ First aid skill, as required at the level of the driver too. 	<p>ISSM:</p> <ul style="list-style-type: none"> • Waste manager, • SHEQ manager, • Affected staff.

I, NICOLE GEOFFREY (the Applicant) hereby declare that I have read the completed Risk Management Plan form and hereby confirm that the information is, to the best of my knowledge, true and correct

Furthermore, I declare that I am fully aware of my responsibilities in terms of the Waste Exclusion Regulations, and that failure to comply with these Regulations may constitute an offence in terms of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008).



Signature of the applicant¹/ Signature on behalf of the applicant:

ILLOVO SUGAR (SOUTH AFRICA) (PT) LTD

Name of Applicant:

SHERQ OFFICER

Designation

26 SEPTEMBER 2023

Date:

¹ If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority.