

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.

BACKGROUND INFORMATION			
APPLICANT	AECI Plant Health – of which AECI Ltd is the main company.		
CONTACT PERSON	Ms Zodwa Mbizeni – AECI SHEQ Practitioner		
NAME	Zodwa		
	1st Floor AECI Place		
	24 The Woodlands		
	Woodlands Drive		
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TELEPHONE	011 823 8000		
CELL PHONE	079 109 7735		

WASTE FACILITIY OR FACILITIES				
	At AECI Plant Health they produce three types of solutions that			
	generate waste, namely:			
	- Calcium nitrate Solution	50% <i>,</i>		
	- Magnesium Nitrate Solut	tion 35% and		
SOURCE (S) OF WASTE	- Ammonium Nitrate Solut	tion 21%.		
	Three portions are to be exclud	ed at the AECI Ltd's AECI Plant		
	Health plant within the Modderfe	ontein Industrial Complex.		
	These three portions include:			
	- Thermal Calcium Nitrate Sludge			
	- Thermal Effluent Sludge			
WASTE TO BE BENEFICIATED	- Thermal Magnesium Nitr	ate Sludge		
GPS CO-ORDINATES AT CORNERS	LATITUDE	LONGITUDE		
OF WASTE GENERATING FACILITY				
OR FACILITIES	26°05'28.69"S	28°10'01.50"E		
	26°05'29.66"S	28°10'07.58"E		
	26°05'32.51"S	28°10'07.02"E		
	26°05'31.25"S	28°10'00.89"E		
	The possible uses of waste:			
	Carrier for organic fertilizer			
BENEFICIAL USE/S	Filler in brick manufacturing			

WASTE GENERATING PROCESS				
	YES	NO		
	Annexure D of the main			
MSDS ATTACHED IF HAZARDOUS	application document.			
WASTE GENERATING FACILITY	HAZARDOUS	GENERAL		

RISK MANAGEMENT PLAN

PROCESS	ACTIVITY	RISK DESCRIPTION	ACTION(S)	RESPONSIBILITY
AREA			то	(Who is responsible to do
			MINIMIZE/MANAGE RISK	it)
Aluminium	Storage of Dangerous	Pipeline leaks during	Spill kits available. MSDS's	Engineering
Sulphate	Goods - Corrosive products	filling of storage and from	available, Hazardous	Superintendent/
Plant	- Sulphuric Acid	storage to reactor	Chemical Handling	Responsible
Tianc			Training	SHEQ/Handler
Aluminium	Storage of Dangerous	Spill during	Spill kits available. MSDS's	Engineering
Sulphate	Goods - Low hazard -	transportation, loading or	available, Hazardous	Superintendent/
Plant	Aluminium Tri-Hydrate	storage.	Chemical Handling	Responsible
Tranc			Training	SHEQ/Handler
Aluminium	Production and Storage of	Spill during	Spill kits available. MSDS's	Engineering
Sulphate	Dangerous Goods -	transportation, loading or	available, Hazardous	Superintendent/
Plant	Corrosive product -	storage.	Chemical Handling	Responsible
	Alumium Sulphate Solution		Training	SHEQ/Handler
Aluminium		Spill during transportation, loading or storage.	Spill kits available. MSDS's	Engineering
Sulphate	Waste - Aluminium		available, Hazardous	Superintendent/
Plant	Sulphate Sludge - Corrosive		Chemical Handling	Responsible
			Training	SHEQ/Handler
	Waste from Aluminium		Spill kits available. MSDS's	Engineering
Aluminium	production - Empty bulk		available, Hazardous	Superintendent/
Sulphate	bag and pallets - Low	Contaminated Bulk Bag	Chemical Handling	Responsible SHEQ/Site
Plant	Hazard		Training/Proper	Emloyees/Handler
			housekeeping	
Aluminium	Waste water from washing		Spill kits available. MSDS's	Engineering
Sulphate	filter press (effluent) - Low	Waste water	available, Hazardous	Superintendent/
Plant	hazard		Chemical Handling	Responsible SHEQ
· · · · · ·			Training	

Aluminium Sulphate Plant	Sludge waste from process - Oxidiser - Hazardous	Corrosive sludge	Skip bins with tapoline cover, waste collected by approved and authorised waste service provider	Engineering Superintendent/ Responsible SHEQ
Aluminium Sulphate Plant	Production and Storage of Dangerous Goods - Corrosive product - Alumium Sulphate Solution - Emission	Emission - COx, NOx and SOx gases	Annual Atmospheric emission survey, PM on extraction system, Atmospheric Emission Licence conditions compliance	Engineering Superintendent/ Responsible SHEQ
Ferti Liquid Plant	Offloading of Dangerous Goods - Hazardous - Ammonium Nitrate Solution (88-89.5%)	Spill during off-loading (when received from the tanker) Explosive products	Spill kits available. MSDS's available, Hazardous Chemical Handling Training	Engineering Superintendent/ Responsible SHEQ/Handler
Ferti Liquid Plant	Production of Dangerous Goods - Low Hazard - Ammonium Nitrate Solution (21%)	Spill during production in boiling	Spill kits available. MSDS's available, Hazardous Chemical Handling Training	Engineering Superintendent/ Responsible SHEQ/Handler
Ferti Liquid Plant	Loading of Dangerous Goods - Low Hazard - Ammonium Nitrate Solution (21%)	Spill during loading	Spill kits available. MSDS's available, Hazardous Chemical Handling Training	Engineering Superintendent/ Responsible SHEQ/Handler
Ferti Liquid Plant	Production of Dangerous Goods - Low Hazard - Urea Ammoniam Nitrate Solution (32%)	Spill during production	Spill kits available. MSDS's available, Hazardous Chemical Handling Training	Engineering Superintendent/ Responsible SHEQ
Ferti Liquid Plant	Production of Dangerous Goods - Low Hazard - Urea Ammoniam Nitrate	Emission - COx, NOx and Sox gases	Annual Atmospheric emission survey, PM on extraction system, Atmospheric Emission	Engineering Superintendent/ Responsible SHEQ

	Solution (21 and 32%) - Emissions		Licence conditions compliance	
Ferti Liquid Plant	Loading of Dangerous Goods - Low Hazard - Urea Ammoniam Nitrate Solution (32%)	Spill during loading	Spill kits available. MSDS's available, Hazardous Chemical Handling Training	Engineering Superintendent/ Responsible SHEQ/ Handler
Calmag Plant	Production of Dangerous Goods - Low Hazard - Calcium Nitrate and Magnesium Nitrate	Spill during loading, off- loading or storage. Low hazard product	Lined bulk bags, MSDS's available, Spill kits, Trained on how to clean spill	Engineering Superintendent/ Responsible SHEQ/Handler
Calmag Plant	Storage of Dangerous Goods - Low Hazard - Calcium and Magnesium Carbonate	Spill during off-loading. Low Hazard	Stored in a designated enclosed warehouse, MSDS's available, Spill kits	Engineering Superintendent/ Responsible SHEQ/Handler
Calmag Plant	Waste from Calmag production - Empty bulk bag and pallets - Low Hazard	Contaminated Bulk bags	Waste stored in a concrete area and collected by supplier. Propper housekeeping.	Engineering Superintendent/ Responsible SHEQ/Supplier/ Handler
Calmag Plant	Waste water from washing plant reactors and filter press (Effluent) - Low hazard	Waste water	Spill kits available. MSDS's available, Hazardous Chemical Handling Training	Engineering Superintendent/ Responsible SHEQ
Calmag Plant	Sludge waste from process - Oxidiser - Hazardous	Spill during loading into farmers truck - Oxidiser - Hazardous	Spill kits available. MSDS's available, Hazardous Chemical Handling Training	Engineering Superintendent/ Responsible SHEQ/Handler
Calmag Plant	Production of Dangerous Goods - Low Hazard - Calcium Nitrate and	Emission - COx, NOx and SOx gases	Annual Atmospheric emission survey, PM on extraction system, Atmospheric Emission	Engineering Superintendent/ Responsible SHEQ

	Magnesium Nitrate Emissions		Licence conditions compliance	
Calmag Plant	Empty Bulk bag and Pallets	Environmental pollution - water and ground	Collected by Supplier - Idwala	Engineering Superintendent/ Responsible SHEQ/Supplier
Urea Plant	Production of product - Urea Solution43% - Acetic acid - Corrosive and Low Hazard	Spill during production, loading onto and tanker, tank overflow	Vessel integrity test, PM, MSDS, Spill kit, Training on HCS	Engineering Superintendent/ Responsible SHEQ/Handler
Urea Plant	Storage of product - Urea - Pallets Low Hazard	Spill during storage	Trained and competent forklift operators, lined bulk bag, stored on a concrete surface	Engineering Superintendent/ Responsible SHEQ/Handler
Urea Plant	Waste from Urea production - Empty bulk bag and pallets - Low Hazard	Contaminated empty bulk bag and used pallets	Stored in a concrete floor storage area, reuse them and also collected by a recycler. Proper housekeeping	Engineering Superintendent/ Responsible SHEQ
Urea Plant	Storage of product - Acetic acid - Corrosive and Low Hazard	Spill during storage or transferring from the 210L drum into a 10L drum.	MSDS's, Spill Kit, Training on HCS handling	Engineering Superintendent/ Responsible SHEQ

I, <u>Quintin Mark Cross</u> (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:

Name of Applicant:

Designation

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.