

		FOOD SAFETY MANAGEMENT SYSTEM			
		Subject : Threat Analysis and Critical Control Point (TACCP) and Vulnerability Analysis and Critical Control Point (VACCP)			
Date :	15 February 2019	Developed By:	V Mabelane	Page :	1 of 10
Doc No :	SD 64	Responsibility:	All FST Members	Rev :	01

Requirement		Addressed within the FSMS	Responsibility
1. FOOD DEFENSE – THREAT ASSESSMENT			
Threat assessment 1) The organization shall document, establish and maintain a documented procedure for food defense threat assessment that: a) identifies potential threats, b) develops preventive measures, and c) prioritises them against the threats. 2) In order to identify the threats, the organization shall assess the susceptibility of its products to potential acts of: a) sabotage, b) vandalism, and/or c) terrorism.		The organisation has detailed all potential threats to the business by conducting a TACCP study on all processes.	FST Leader FST Member Security
2. IDENTIFICATION OF THREATS			
The organization in the food chain shall ensure the effective preventative measures are in place for all threats deemed necessary by the TACCP Study.		- TACCP Study Conducted DOC : SD 63 - Threats, such as Sabotage, Vandalism and Terrorism shall be identified and rated for all processes within the organisation.	FST Leader FST Members
THREATS		VULNERABILITIES	
a) Sabotage b) Cyber attacks on the company servers - Tampering with the ERP system to shut down company production for ransom. Fraud and collusion with suppliers. c) Hijacking of truck with raw materials during delivery. d) Industrial espionage by visitors through plant walk about and tours. e) Theft of company property f) Sabotage of raw materials by deliberate contamination g) Malicious contamination/ vandalism or interference of machinery, products and materials		a) Substitution b) Dilution c) Counterfeiting d) Unapproved Enhancements e) Concealment f) Mislabelling g) Grey market production	
3. FOOD FRAUD PREVENTION			
VULNERABILITY ASSESSMENT		The PRP for Food Defense and Bio-terrorism	FST Leader

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1) The organization shall document, establish and maintain a documented procedure for food fraud vulnerability assessment that: a) identifies potential vulnerabilities, b) develops preventive measures, and c) prioritizes them against the vulnerabilities. 2) In order to identify the vulnerabilities, the organization shall assess the susceptibility of its products to potential acts of food fraud.	considers vulnerabilities that the company could be subjected too as well as the preventive measures • VACCP Assessment SD 63 will be conducted annually and be reviewed for suitability and effectiveness	FST Members
4. IMPLEMENTATION OF PREVENTATIVE MEASURES		
The organization shall put in place appropriate preventive measures to protect consumer health impacts. These processes shall; a) be controlled within the scope of the food safety management system; b) be in compliance with applicable legislation.	• All Threats and Vulnerabilities are to be rated according to the following table: • Whilst the organisation will attempt to prevent or limit all risks, those considered LH, HL, MM, MH, HH will be deemed most important to control	FST Leader FS team

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	PROBABILITY/ CHANCE OF OCCURRENCE		SEVERITY/ EFFECT OF THREAT TO THE CONSUMER	
	1	<u>Low</u> - Hardly ever occurs	1 - Low	No significant threat to the customer/ No adverse health effect. Minor threat.
	2	<u>Medium</u> – Occurs at certain intervals	2 - Medium	Could compromise the product safety, have an impact on processes, etc.
	3	<u>High</u> – Frequent occurrence	3 - High	Affect business continuity by causing major harm to consumers through the final product.
5. REVIEW				
The food defense procedure shall be reviewed: a) after each actual or potential failure of a preventive measure, and b) at least annually.		• Annual review of the TACCP/VACCP and the procedure, or after any recall or incident. • Internal audit and Management Reviews will be used to understand suitability of the procedure.		FST Leader

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THREATS (TACCP STUDY)

Process Step	Type of Threat	Risk Assessment			Controls	Additional Controls Required
		Likelihood	Sev	Risk		
1. Truck arrives on site	Hijacking of truck with raw materials during delivery.	1	1	1	Satelite monitoring of trucks	
2. Offload goods	Sabotage of raw materials by deliberate contamination	1	2	2	Designated recipient and offloading area Security check point Inspect seals intact	Cctv to be installed
3. Route to stores	Sabotage of raw materials by deliberate contamination	1	2	2	Designated forklift driver Stores to sign DN	Cctv to be installed
4. Issue to production	Malicious contamination/ vandalism or interference of machinery, products and materials	1	2	2	BoM checklist Password controlled Batch card/ Works order	
5. Job setup	Malicious contamination/ vandalism or interference of machinery, products and materials	1	2	2	Machine settings First off check Supervision of staff CCTV installed On the job training Background checks on employees Whistleblowers policy	

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					Access control/ biometrics	
6. Corrugating	Malicious contamination/ vandalism or interference of machinery, products and materials	1	2	2	Machine settings First off check Supervision of staff CCTV installed On the job training Background checks on employees Whistleblowers policy Access control/ biometrics	
7. Conversion	Malicious contamination/ vandalism or interference of machinery, products and materials	1	2	2	Machine settings First off check Supervision of staff CCTV installed On the job training Background checks on employees Whistleblowers policy Access control/ biometrics	
8. Printing	Malicious contamination/ vandalism or interference of machinery, products and materials	1	2	2	Machine settings First off check Supervision of staff CCTV installed On the job training Background checks on employees Whistleblowers policy Access control/ biometrics	
9. QC Testing	Sabotage of raw materials by	1	2	2	Machine settings First off check	QC Manager to approve COA's

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	deliberate contamination Cyber attacks on company IT info				Supervision of staff CCTV installed On the job training Background checks on employees Whistleblowers policy Access control/ biometrics	
10. Wrapping	Malicious contamination/ vandalism or interference of machinery, products and materials	1	2	2	Machine settings First off check Supervision of staff CCTV installed On the job training Background checks on employees Whistleblowers policy Access control/ biometrics	
11. Packaging	Malicious contamination/ vandalism or interference of machinery, products and materials	1	2	2	Machine settings First off check Supervision of staff CCTV installed On the job training Background checks on employees Whistleblowers policy Access control/ biometrics	
12. Despatch	Malicious contamination/ vandalism or interference of machinery,	1	2	2	Security checks Weighbridge ticket Waybills Cctv Loading on D/S only	

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	products and materials					
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- a) Substitution
- b) Dilution
- c) Counterfeiting
- d) Unapproved Enhancements
- e) Concealment
- f) Mislabelling
- g) Grey market production

VACCP STUDY

Process Step	Type of Vunerability	Risk Assessment			Controls	Additional Requirements
		Likelihood	Sev	Risk		
1. Truck arrives on site	None					
2. Offload goods	None					
3. Route to stores	None					
4. Issue to production	Issue of incorrect grades Dilution of chemicals Use of expired/ reject goods	2	1	2	RM labelling Wet ink line up Product specifications	Consider a System to throw out expired chemicals
5. Job setup	Unapproved Enhancements	1	2	2	Verify job spec matches job card	

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	Dilution Substitution				Machine setting sheets CCTV monitoring Supervision of staff F/O inspection/ approval by Manager	
6. Corrugating	Unapproved Enhancements Substitution	1	2	2	Verify job spec matches job card Machine setting sheets CCTV monitoring Supervision of staff F/O inspection/ approval by Manager	
7. Conversion	Unapproved Enhancements Substitution		2	2	Verify job spec matches job card Machine setting sheets CCTV monitoring	

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					Supervision of staff	
					F/O inspection/ approval by Manager	
8. Printing	Unapproved Enhancements Substitution Dilution	1	2	2	Verify job spec matches job card Machine setting sheets CCTV monitoring Supervision of staff F/O inspection/ approval by Manager	
9. QC Testing	Passing NC/ rejected goods	1	2	2	COA's approved by senior QC Manager Product specs vs COA's vs job cards Retention samples Shift reports	

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10. Wrapping	Remove packed items that impacts on weight/ quantity	2	1	2	Count/ weight goods prior to delivery CCTV	
11. Packaging	Remove packed items that impacts on weight/ quantity	2	1	2	Count/ weight goods prior to delivery CCTV	
12. Despatch	Remove packed items that impacts on weight/ quantity	1	2	2	Count/ weight goods prior to delivery CCTV	