# Standards regarding Food Safety and Food Hygiene of Regulated Agricultural Products of Plant Origin destined for Export.

- as stipulated under 4(3)(a)(ii) of the Agricultural Products Standards Act 119 of 1990, and promulgated in notice R707 of 13 May 2005.

FBO Type: Grain storage facilities

**Revision: November 2007** 

**Proposed Implementation: 1 January 2008** 

## **COMPLIANCE CRITERIA, NOTES AND MANAGEMENT AIDS**

<u>Scope</u>: Facilities involved in the handling, storage and distribution of regulated grains and oilseeds (excluding groundnuts) intended for export.

#1	REGISTRATION				
	PPECB would confirm the registration status of a Food Busines	s Operator and establishment(s) before arranging an audit.			
#1.1	Have relevant establishments been registered with the Department of Agriculture and FBO Codes allocated?	The Food Hygiene and Food Safety Standard issued under the APS Act [Agricultural Product Standards Act, 1990 (Act No. 119 of 1990)] specifies that a Food Business Operator (FBO) must register establishments that handle products of plant origin that are destined for export.			
		Each registered establishment is allocated an FBO Code.			
		The FBO is responsible for keeping registrations and details associated with the FBO Code up to date.			
		Details relating to FBO registrations are available on the Department of Agriculture website, <a href="http://www.nda.agric.za/plantquality/default.htm">http://www.nda.agric.za/plantquality/default.htm</a>			
#1.2	Have grains and oilseeds food products produced or handled by an establishment been registered for and identified with that	The FBO must identify grains and oilseeds produced or handled by each establishment. The grains and oilseeds are associated with the relevant FBO Code.			
	establishment?	The FBO is responsible for keeping details relating to grains and oilseeds up-to-date.			
#2	CERTIFICATION				
	PPECB would confirm the certification status of a Food Busines	s Operator and establishment(s) before arranging an audit.			
#2.1	Has the FBO (establishment) been certified to a private commercial standard such as HACCP or BRC?	PPECB establishes the priority and frequency of audits based on the risk profile of the FBO (establishment).			
		The FBO (establishment) that is certified as complying with a recognized standard would usually be considered to be a relatively lower risk than the FBO (establishment) that has no certification.			

#### #3. RECORD KEEPING FOR FOOD SAFETY PURPOSES

Records provide evidence of due diligence and compliance with requirements and, in the event of something going wrong, may be vital to investigations and consequential actions such as product withdrawals.

The FBO (establishment) is responsible for implementing a suitable record keeping system.

#### As illustrations of statement of requirements:

- The Food Hygiene and Food Safety Standard issued under the APS Act [Agricultural Product Standards Act, 1990 (Act No. 119 of 1990)] requires a food business operator to:
  - -identify potential hazards that may contaminate the produce, and when identified, develop and implement a food safety programme to control the hazard or hazards -this programme must be documented, and must be reviewed at least annually.
- Quality Standards and Food Hygiene and Food Safety Standards issued under the APS Act [Agricultural Product Standards Act, 1990 (Act No. 119 of 1990)] specify that, for traceability purposes, food business operators should keep adequate records which allow them to identify the suppliers of ingredients and food products used in their operations, as well as food businesses supplied with products.

Requirements relating to records are specified in the food safety checklist questions and compliance criteria, and highlighted by a "R".

Requirements relating to physical evidence are specified in the food safety checklist questions and compliance criteria, and highlighted by "P"

- Records may not always be available at the point of operations during the audit e.g. were record sheets to be processed in the administration or information services department. Nevertheless, operational management and staff should know where all relevant records would be held, and the auditor should have access to the records requested during an audit.
- Historic records would usually not be examined during a food safety audit.

It would be good practice for the FBO (establishment) and operational management and staff to review the findings of a food safety audit with regard to the quality and availability of records in each aspect of operation assessed by answering under each section of this checklist whether the records requested during the audit were available, and were there any specific considerations to be noted or actions required.

A sample summary and review sheet is provided on the next page, for off farm produce handling facilities.

	Records summary/review worksheet - Grain s	torage facilities (This document is not audited.)
Section 1	TRACEABILITY	
	- Are records requested during the audit available?	
	- Are any specific considerations to be noted or actions required?	
Section 2	HACCP PRINCIPLES	
	- Are records requested during the audit available?	
	- Are any specific considerations to be noted or actions required?	
Section 3	LOCATION OF STORAGE FACILITY	
	- Are records requested during the audit available?	
	- Are any specific considerations to be noted or actions required?	
Section 4	WATER SUPPLY	
	- Are records requested during the audit available?	
	- Are any specific considerations to be noted or actions required?	
Section 5	DRAINAGE AND WASTE DISPOSAL	
	- Are records requested during the audit available?	
	- Are any specific considerations to be noted or actions required?	
Section 6	PERSONNEL HYGIENE	
	- Are records requested during the audit available?	
	- Are any specific considerations to be noted or actions required?	
Section 7	STORAGE (CLEANING CHEMICALS)	
	- Are records requested during the audit available?	
	- Are any specific considerations to be noted or actions required?	
Section 8	POST HARVEST CHEMICAL TREATMENTS (WHERE APPLICABLE)	
	- Are records requested during the audit available?	
	- Are any specific considerations to be noted or actions required?	
Section 9	GRAIN STORAGE FACILITY – MANAGEMENT PROCESSES	
	- Are records requested during the audit available?	
	- Are any specific considerations to be noted or actions required?	
Section 10	FACILITY MAINTENANCE, CLEANING AND PEST CONTROL	
	- Are records requested during the audit available?	
	- Are any specific considerations to be noted or actions required?	
Section 11	MANAGING GRAIN WITHDRAWALS	
	- Are records requested during the audit available?	
	- Are any specific considerations to be noted or actions required?	

#### #4. MANAGING WITHDRAWALS

Quality Standards and Food Hygiene and Food Safety Standards issued under the APS Act hold producers, packhouses and exporters responsible for establishing traceability of products at all stages of production, packing, handling and distribution and – with relevant FBOs - for withdrawing products that present a serious risk to the health of consumers.

The Codex Alimentarius "Principles And Guidelines For The Exchange Of Information In Food Safety Emergency Situations" (CAC/GL 19-1995, Rev. 1-2004) provides guidance for use by national governments and regional economic integration organizations for the exchange of information in food safety emergency situations. These Principles and Guidelines apply to situations where the competent authorities in either the importing and/or exporting countries become aware of a food safety emergency situation, and communication of the information and risks surrounding the emergency situation must be undertaken.

Each country should designate a primary official contact point for food safety emergency situations, which can act as the national focal point for information exchange in such situations

The following food safety authorities may play a key role in the event of any significant food safety alert, incident and action involving produce exported or destined for export.

National Department of Health	National Department of Agriculture
Directorate: Food Control	Directorate: Food Safety and Quality Assurance
Mr AWJ Pretorius	Agricultural Place, Room LAFF:09
Pretoria	20 Beatrix Street
Tel: (012) 312 0185	PRETORIA
Fax: (012) 312 3180	Tel: (012) 319 7000
E-mail: pretoa@health.gov.za	Fax: (012) 319 6764
	E-mail: DFSQA@nda.agric.za

R/P	Item	Control Point	Level	Compliance Criteria / Guidance Notes
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1.		TRACEABILITY					
1.1		Is grain traceable at the grain storage facility (establishment)?					
R/P	1.1.1	Is the grain that is received at the grain storage facility (establishment) identified?	MAJOR	Record the grains received at grain storage facility (establishment).  - Grain identity e.g. grain type  - Quantity  - Date received (Time – where applicable)  - Grade and moisture of grain.	The grain that is received should be fully described, as discrete identity will be lost once the grains are placed in a grain storage facility.		
R/P	1.1.2	Is the source of the grain received (i.e. the "sender" of the grain) identified?	MAJOR	Record the source (sender) of the grain received.  - FBO Code of the sending facility(where applicable)  - Name and address  - Details of the transport that delivered the grain (where applicable).	Full traceability requires that the source (sender) of the grain be recorded, whether or not the source (sender) is a registered FBO.		
R/P	1.1.3	Is grain traceable within the grain storage facility (establishment)?	MAJOR	Record the identity of the grain storage facility bin in which the grain is placed. What grain - From-location (as appropriate) - To-location (as appropriate)	There would normally be several grain storage facility bins at a (establishment/grain storage facility). Each grain storage facility should have its own FBO Code. The FBO Code of the grain storage facility(s) in which the grain is placed should be recorded. Records must also be kept of where grain is stored (silo bin, bag or dam).		
1.2	1	Are grains that leave the grain storage facility (establ	ishment) trad	ckable to the next entity?			
R/P	1.2.1	Is the grain storage facility (establishment) identified as the "sender" of the grain?	MAJOR	Record the grain storage facility (establishment) identity (FBO Code) as the sender of the grain.			
R/P	1.2.2	Is the grain that leaves the grain storage facility (establishment) identified?	MAJOR	Record the identities of grains that leave the grain storage facility (establishment)  - Grain identity and description in accordance with product standards.  - Consignment identification	Full traceability requires that all grains be identified and traceable, including those that are diverted from the export chain to the local market and industrial processing, or for waste.		

R/P	Item	Control Point	Level	Compliance Criteria / Guidance Notes	
R/P	1.2.3	Is the next receiver in the supply chain identified?	MAJOR	Record the identity of the next receiving entity  - Exporter, and/or  - Name and address of receiving entity, and/or  - Transporter FBO Code and vehicle details.	Full traceability, and the ability to support recalls or withdrawals, would require all recipients to be recorded, whether or not registered FBOs.
2.		HACCP BASED PRINCIPLES			
R	2.1 Is a document available to indicate that a hazard analysis of the process in the store has been conducted taking into consideration biological, chemical and physical hazards, and if a hazard was identified that is not addressed by the measures indicated in this checklist, were appropriate control points implemented to control the hazard?  Refer to HACCP Guidelines / Industry where available.		ere available.		
3.		LOCATION OF STORAGE FACILITY			
Р	3.1	Is the storage facility not located in an area that poses a threat to food safety?	MINOR	The store should not be located in areas where: -contamination of grain may occur by means of environmentally polluted and industrial areasit will be prone to infestations of pests.	
4.	·	WATER SUPPLY		1	
R	4.1	Is the water used for sanitation purposes (washing) potable, i.e. drinking quality?	MINOR	Annual testing:  Microbial Limits must not exceed the followard followard formula in the followard followa	ia – 10/100ml risk of the water used.
5.		DRAINAGE AND WASTE DISPOSAL			

R/P	Item	Control Point	Level	Compliance Criteria / Guidance Notes
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R/P	5.1	Are all waste disposal containers and areas specifically identified, cleaned and maintained?	MINOR	Waste disposal containers/areas must be identified and managed to prevent cross-contamination of grain.
				The area must be routinely cleaned and maintained (removal of waste), and cleaned according to the cleaning schedule.
Р	5.2	Is a drainage system provided for efficient disposal of wastewater to prevent the contamination of grain or the	MINOR	Floors must be designed with i.e. slopes, drainage channels and kept free and clear to ensure drainage.
		potable water source?		If the structure does not allow adequate drainage, the cleaning procedure must detail removal of excess water.
Р	5.3	Are the grounds in the immediate vicinity of the store free of litter, waste and improperly stored garbage, and is grass on the premises kept short?	MINOR	Long grass will harbour pest activity.
6.		PERSONAL HYGIENE		
R	6.1	Does the storage facility have documented hygiene instructions?	MAJOR	The instructions must at least include:  - the need for hand cleaning;  - the covering of skin cuts;  - limitation on smoking, eating and drinking to certain areas;  - notification of any relevant infections or conditions;  - wearing of jewellery  - the use of suitable protective clothing.
				It should also be included in a hygiene instruction that staff must report illnesses to management.
Р	6.2	Do workers implement the hygiene instructions?	MAJOR	There is evidence that the workers are complying with hygiene instructions (Physical observation).
R	6.3	Are workers trained in basic hygiene?	MINOR	Evidence of basic hygiene training (content of hygiene instruction) must be available.  Is this training repeated at a set interval (e.g. yearly/seasonally) to refresh personnel about the company's hygiene requirements.  There is evidence (i.e.: signed attendance registration, external certificates) that the workers
				have received verbal and documented understandable instructions in the relevant aspects of produce handling hygiene including: personal cleanliness i.e. hand washing, wearing of jewellery and fingernail length and cleaning etc. clothing cleanliness, personal behaviour, i.e. no smoking, spitting, eating, chewing, perfumes, etc.).
Р	6.4	Do workers have access to first-aid facilities?	MINOR	Maintained first aid kits and recommendations must be available and accessible in the vicinity of the work. (These kits must as a minimum include bandages, plasters and disinfectant).

R/P	Item	Control Point	Level	Compliance Criteria / Guidance Notes			
Р	6.5	Do all workers and visitors wear suitable clean protective clothing?	MINOR	Protective clothing shall be clean and neat and of such design (buttons, pockets etc.) that it cannot contaminate food. The design should also prevent any part of the body (except hands) to come into contact with any part of the body.			
Р	6.6	Are adequate, suitable and conveniently located sanitary facilities available?	MAJOR	Adequate: Approximately 15 persons to one toilet facility. If the number of people exceeds 10, then separate men's and women's toilets should be provided.  Running water must be available for washing of hands. Hand washing facilities must be			
				available at the grain storage facility.			
Р	6.7	Are sanitary facilities maintained?	MAJOR	Toilet paper, liquid disposable soap, and where disposable paper towels are used, a bin for paper waste.			
Р	6.8	Are visible signboards directing workers to wash hands present, instructing workers to wash hands before grain is handled?	MINOR	The hygiene instructions are visibly displayed: provided by way of clear signs (pictures) or in the predominant language(s) of the workforce.			
7.		STORAGE (CLEANING CHEMICALS)					
Р	7.1	Is the storage facility for the storage of cleaning	MINOR	The storage facility must be secure and access only allowed to trained personnel.			
		chemicals suitable for the purpose and secure?		The facility must allow adequate ventilation, be well lit, be able to retain spillage, and be of sound construction.			
Р	7.2	Are all chemicals properly labelled?	MINOR	All the chemicals kept in the store must be kept in the original containers and packs, in case of breakage only, the new package must contain all the information of the original label.			
8.		FUMIGATION (WHERE APPLICABLE)					
P/R				Valid DoA fumigation certificate. (p-number)			
	8.1	Are the personnel doing fumigation trained, and are records of such training available?	MAJOR	If fumigation is sub-contracted to a fumigation company, the grain storage facility owner must verify that the sub-contracted operator has a valid fumigation certificate. These certificates are only valid for one year, and have to be renewed in June of each year.			
P/R	8.2	Are the chemicals used for fumigation, registered? (Act 36 of 1947)	CRITICAL	If a subcontracted fumigator is used, this question will be marked as "not applicable"			
P/R	8.3	Is the fumigation done in accordance with manufacturers instructions?	CRITICAL	If a subcontracted fumigator is used, this question will be marked as "not applicable"			
Р	8.4	Are the chemicals stored in a secure place separate from grain?	MAJOR	Grain or waste material should be stored separately from chemicals.  If a subcontracted fumigator is used, this question will be marked as "not applicable".			

R/P	Item	Control Point	Level	Compliance Criteria / Guidance Notes
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Р	8.5	Is access to the room in which chemicals are stored controlled?	MAJOR	The chemical storage facilities are kept secure under lock and key.  Physical access is only granted in the presence of persons who can demonstrate formal training in the safe handling and use of fumigant products.
				If a subcontracted fumigator is used, this question will be marked as "not applicable".
Р	8.6	Is the person handling chemicals equipped with protective clothing?	MAJOR	Protective clothing should be provided and used according to the label instructions.  If a subcontracted fumigator is used, this question will be marked as "not applicable".
P/R	8.7	Have withholding periods been complied with for grains/oilseeds fumigated before despatch?	CRITICAL	Again product specification and type of product must be taken into account. Records should show date of application, and product should not be loaded out unless the withholding period has been complied with.
9.	9. GRAIN STORAGE FACILITY - MANAGEMENT PROCESSES			
Р	9.1	Is the intake and dispatch area covered with a roof?	MINOR	
P/R	9.2	Before out-loading, are procedures in place to, check the condition of transport?	MINOR	Physical check will be done by the auditor. The record can be in the form of a checklist or a note on the delivery note.
Р	9.3	Is all equipment, coming in to contact with grain, suitably durable and clean?	MINOR	Equipment constructed of durable material should be used to handle and convey product, as to minimize product contamination. The equipment should also be visibly clean. Here the auditor would look at fraying of conveyors belts, rusting and flaking paint.
R	9.4	Is there a procedure to control non-conforming consignments e.g. grain with dangerous objects?	MINOR	Grain that does not conform can constitute product with broken glass poisonous seeds, wood, chemical/oil spillage. Dangerous objects are all objects/liquids/gasses that can pose a food safety risk. There should be a procedure to handle such consignments, i.e. segregation, sieving etc.
				This procedure must also include how to handle product that got wet during off-loading or other storage processes.
Р	9.5	Are there measures in place to avoid mixing different grains?	MINOR	Is there a working procedure in the grain storage facility, either manual (slashes) or automatic (control-panel) that prevents grain from mixing?
P/R	9.6	Are there procedures for cleaning and handling of intake sweepings?	MINOR	If grain is swept into the intake hopper after a truck off-loading, safety measures such as sieving, etc should be in place to prevent sweepings contaminating the rest of the grain. The intake area should also be regularly cleaned to avoid grain contamination.

R/P	Item	Control Point	Level	Compliance Criteria / Guidance Notes
				Regular controls such as sieving tests for insect infestation, checking for hot-spots, condensation in the grain etc. should be done to maintain the storage condition of grain.
Р	9.7	Is there a procedure to prevent deterioration during storage?	MINOR	Good storage principles such as FIFO should be employed.
				This procedure must also include the management of the bin-lid to prevent product contamination. (How to ventilate the bins, grids etc.)
R/P	9.8	Are grain that are unfit for human consumption isolated in accordance with a procedure?	MAJOR	If grain is contaminated / damaged, does the procedure prescribe how the grain will be handled?  E.g. isolating from distribution and making sure that grain is not consumed by humans.
10.		FACILITY MAINTENANCE, CLEANING AND PEST COM	ITROL	
10.1		Maintenance and cleaning		
				Flaking paint, equipment chipping etc. will constitute a physical hazard to product.
		Are all surfaces in a good condition?	MINOR	They should be made of smooth, non-absorbent materials, and inert to the food, to detergents and disinfectants under normal operating conditions.
P	10.1.1			It must also be constructed of material facilitating effective cleaning, such as plastic, stainless steel, cement, except wood.
				Floor surfaces that could have an impact on the safety of the product, must be in good condition with no standing water.
Р	10.1.2	Are cleaning chemicals used according to the manufacturer's instructions?	MINOR	Documentary evidence exists authorizing (i.e. specific label mention or technical data sheet) use for the food industry of Cleaning Agents, Lubricants etc. which may come into contact with produce.
R	10.1.3	Is there a cleaning schedule in place that defines the different areas and equipment to be cleaned, the frequency, responsibility and verification procedures?	MAJOR	This must include sanitary, change rooms, floors, walls, surrounding and waste disposal areas.
Р	10.1.4	Are all lights over moving grain, covered with protective covers and is all other glass protected to prevent contamination in case of breakage?	MINOR	Light bulbs and fixtures suspended above produce or material used for produce handling are of a safety type or are protected / shielded so as to prevent contamination of food in case of breakage.
R/P	10.1.5	Are there written procedures or checks for monitoring of glass and hard plastic, and action should a breakage	MINOR	Written procedures and checks exist for handling glass or clear hard plastic breakages in produce handling, preparation and storage areas.
		occur?		Monitoring of all glass to check whether it is still intact, as well as corrective action if a breakage does occur.

R/P	Item	Control Point	Level	Compliance Criteria / Guidance Notes
P/R	10.1.6	Is there a procedure in place whereby equipment, i.e. gearboxes is checked for oil leaks?	MINOR	Regular checks should be done on equipment to prevent grain to become contaminated by oil.  The facility must make use of oil pans where the design of the facility allows it.
10.2		Pest Control		
R/P	10.2.1	Is there a procedure for pest control monitoring and treatments?	MAJOR	Establishments and surrounding areas must be regularly examined for evidence of infestation, and any treatments or activity recorded.  External contractor or own trained staff. Frequency to be identified in the procedure.  Service records must be available.  Monitoring traps must be numbered indicated on a site map.  Pest control traps must be maintained and cleaned on a regular basis.  Pest control traps must be secured.

11. MANAGING GRAIN WITHDRAWALS (NB: This section relates to new requirements and is not yet included in audit so		ew requirements and is not yet included in audit scores.)			
R	11.1	Has a specific person on site been given the responsibility to manage food safety investigations and withdrawals, and is that person's contact details available?	Audited/ Not scored	Each FBO (establishment) should have a written procedure for managing a food safety incident or alert, withdrawing grains, and communicating in this regard with authorities and other FBOs / companies who may be involved. The procedure would identify responsibilities and authority, and prescribe controls and reporting relating to the incident and/or affected grains.	Guidelines in this regard will be provided in the Traceability Guideline.
R	11.2	Are procedures in place to respond to and manage a trace information request?	Audited/ Not scored	Each FBO (establishment) should have a written procedure for responding to requests for traceability and food safety information related to a food safety incident or alert. Such a procedure would allow for access to historic/archived information, verification of the accuracy of information, and authorization for release of information.	Guidelines in this regard will be provided in the Traceability Guideline.