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Established in terms of Act 58 of 1995**SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)**

In accordance with regulation 24(c) of the National Standards Bodies Regulations of **28 March 1998**, the Standards Generating Body (SGB) for

Secondary Agriculture

Registered by NSB **01**, Agriculture and Nature Conservation, publishes the following unit standard for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the unit standard upon which qualifications are based. The full unit standard can be accessed via the SAQA web site at www.saga.org.za. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, Hatfield Forum, **1067** Arcadia Street, Hatfield, Pretoria.

Comment on the unit standards should reach SAQA at the address **below and no later than 28 November 2004**. All correspondence should be marked **Standards Setting – SGB for Secondary Agriculture** and addressed to

The Director: Standards Setting and Development

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DIRECTOR: STANDARDS SETTING AND DEVELOPMENT



National Certificate: Cigarette Production – NQF Level 3

Field: Agriculture and Nature Conservation

Sub-field: Secondary Agriculture

NQF level: 3

Credits: 120

Rationale for the Qualification

This Qualification will allow persons currently in, or aspiring to enter the tobacco processing environment and others to obtain an integrated practical and theoretical grounding in the operation of cigarette production and the functions thereof. This **will** ensure a portable, nationally recognized Qualification that will:-

- * Improve the quality of safety in the work environment.
- Optimally utilize resources in the production industry.
- Lead to transformation in economic growth and social development.

The typical range of learners is the currently employed, unemployed and other persons, who want to enter a learning programme to obtain a National Certificate in Cigarette Production at NQF Level 3, to continue building a career path in this industry.

Improved levels of knowledge and skills lead to greater ability to produce at more competitive costs and better quality, which will impact favorably both on the society and the economy of the country.

The learner will have demonstrated an ability to make decisions and consider a range of options after completion of the following unit standards in three specified areas:

Rules of combination

To obtain this Qualification, all fundamental and core unit standards are compulsory.

In addition, a learner must select one **of** the following combinations from the elective unit standards below:

(1)

- Laminate tipping material
- Apply quality control on the final product

(2)

- Apply quality control on filter rods
- Supply raw material to production machines

Access to the Qualification

There are no restrictions placed on learners which may prevent them from gaining access to this Qualification.

Purpose of the Qualification:

This Qualification is aimed at level 3 on the National Qualification Framework. It provides learners with the opportunity to obtain competence in specialised cigarette production processes and practices, namely preparing for cigarette production, maintaining the cigarette production processes, shutting down and cleaning thereof as well as quality monitoring and providing opportunity for learners to grow in this specific field.

The fundamental learning, which learners will acquire, will allow them to be able to compile verbal and written communications and perform basic calculations. This Qualification complies with the objectives of the NQF with regard to facilitating access to, mobility and progression within the Tobacco Processing Industry.

The Qualification focuses on the skills, knowledge, values and attitude required to progress further in the industry. The intention *is* to release the potential of people, in order for them to grow, develop and become more competent workers. This Qualification will furthermore add value to the individuals, their workplace and the economy as a whole.

Learning assumed to be in place:

The learner will have appropriate levels of Communication and Languages, Numeracy and occupational competence equivalent to grade 9 (NQF1) standards.

Exit level outcomes and associated assessment criteria

Exit level outcome

Recall and explain the basic principles, safety procedures and work ethics in the Tobacco Processing Industry in order to meet industry and work standards.

Associated Assessment Criteria

- The Tobacco Processing Industry's basic principles are interpreted and explained.
- The Tobacco Processing Industry's safety procedures are interpreted and explained.
- The Tobacco Processing Industry's work ethics are interpreted and explained.
- The Tobacco Processing Industry's quality management principles and practices are interpreted and explained.

Exit level outcome

Describe and perform the functions/duties/responsibilities required in the preparation for the cigarette production process during material supply, tobacco filling of the machines and brand change-over.

Associated Assessment Criteria

- Work site preparation procedures are identified and explained.
- Consequences of not adhering to work site procedures are explained.
- The relevant supply, filling and change-over activities are performed in accordance with standard operating procedures.
- Procedures for handling equipment and material correctly and according to safety requirements are explained and implemented.

Exit level outcome

Describe and perform the functions/duties/responsibilities required to ensure the cigarette production procedures are maintained throughout the process.

Associated Assessment Criteria

- Work site cigarette production procedures are identified and explained.
- Consequences of not adhering to work site procedures regarding cigarette rod making, filter attachment and cigarette supply to packaging are explained.
- The relevant activities are performed in accordance with standard operating procedures and quality requirements.
- Procedures for handling equipment and material correctly and according to safety requirements are explained and implemented.

Exit level outcome

Describe and perform the functions/duties/responsibilities required to ensure the shut-down procedures are adhered to.

Associated Assessment Criteria

- Prescribed work site shut-down procedures are explained and implemented according to schedule.
- Consequences of not adhering to work site shutdown procedures are explained.
- The relevant shut-down activities are performed in accordance with standard operating procedures and quality requirements.
- Procedures for handling equipment and material correctly and according to safety requirements are explained and implemented.

Exit level outcome

Explain and carry-out the functions/duties/responsibilities required to ensure the cleaning of work area and equipment according to requirements.

Associated Assessment Criteria

- Work site cleaning procedures are identified and implemented.
- Consequences of not adhering to and following work site cleaning procedures are explained.
- The relevant cleaning activities are performed in accordance with standard operating procedures, environmental, safety, health measures and quality requirements.
- Procedures for handling equipment and cleaning material correctly and according to safety requirements are explained and implemented.

Exit level outcome

Demonstrate the ability to work effectively as a member of a multi-cultural manufacturing team.

Associated Assessment Criteria

- Own particular team structure and purpose are identified and explained.
- Roles and responsibilities of each team member are identified and described.
- External and environmental factors that influence the workings and success of the team are explained and assessed.
- The ability to perform in a team is achieved and maintained.

Exit level outcome

Collect, record and retrieve production related data in accordance with work site procedures.

Associated Assessment Criteria

- Type of data required for processing is identified and explained.
- Production data is gathered, recorded and extracted according to instructions and within specified time frames.
- Consequences of not recording and extracting correct production data are explained.

Criteria for internal and external assessors

Assessors need experience in the following areas:

Interpersonal skills, subject matter and assessment.

The assessor needs to be competent in the planning and conducting assessment of learning outcomes and design and develop assessments as described in the relevant unit standards. The subject matter experience must be well developed within the field of cigarette production.

The subject matter experience of the assessor can be established by recognition of prior learning.

Assessors need to be registered with the relevant Education and Training Quality Assurance Body.

International comparability

Website benchmarking was done with Australia, Canada, New Zealand, Ireland and Scotland but none could be found. Furthermore, the International Tobacco Industry was also investigated for relevant Qualification information, but even within the Industry, nothing could be found to make Industry specific comparisons.

Therefore this could be regarded as one of the first formalized Qualifications in cigarette production.

Articulation possibilities

The generic nature of this qualification and the focus on multi-skilling will provide for portability across various sectors in the processing domain. It is envisaged that learners completing this qualification will be employable in fast moving consumers good industries, amongst others such as the sugar industry, tea processing industry and others.

It prepares the learner and form the basis for progression towards other qualifications. The qualification will enable learners to acquire recognised qualifications at different levels across a wide cross-section of skills. This will enable the individual to enter a broad spectrum of career paths and address the needs of the industry in terms of skills required for multi-skilling.

While the qualification will diverge as they progress upwards, there is enough commonality to provide for a solid base of generic skills. The learner will have multiple choices of learning paths and career paths in various technical occupations.

Integrated Assessment Criteria:

Unit standards associated with this Qualification must be used to assess specific and critical cross-field outcomes. Assessment should focus in an integrated way on determining the competence of the learner in terms of the overall purpose and title of this Qualification.

The term integrated assessment also implies that the theoretical and practical components should be assessed together and assess combinations of practical, foundational and reflective competencies.

Assessment activities should be done in real workplace situations and where simulations or role-plays are used, there should be supporting evidence to show that the learner is able to display the competencies to the real work situation.

All assessments should be conducted in line with the following documented principles of assessment: appropriateness, fairness, manageability, and integration into work of learning, validity, direct, authentic, sufficient, systematic, open and consistent.

Learners wishing to be assessed will need to provide evidence of the following:

- Verbal and written explanations of reasons for adhering to operational and work site procedures as well as statutory requirements, adhering to specific sequence of operations, identifying deviations, taking corrective actions and recording relevant data, and reporting deviations outside the jobholder's responsibility.
- Demonstrations of a range of operational actions relating to applying quality control on the cigarettes, preparing for and producing cigarettes, shutting down and cleaning a cigarette maker, conducting a cigarette brand change-over and applying general safety in the work place. Learners will also demonstrate an understanding of the Tobacco Processing Industry.
- Oral or written questioning regarding the reflexive competencies within the Qualification:

If the identifying and solving of problems, team work, organising one-self, the using of applied science, the implication of actions and reactions in the world as a set of related systems are not clear from the observation a method of oral questioning or a cases study should be applied to determine the whole person development and integration of applied knowledge and skills.

- A portfolio of evidence is required to prove the practical, foundational and reflexive competencies of the learner which may include production and quality statistics.
- Assessors and moderators should develop and conduct their own integrated assessment by making use of a range of formative and summative assessment methods. Assessors should assess and give credit for the evidence of learning that

has already been acquired through formal, informal and non-formal learning and work experience.

- Unit standards in the Qualification must be used to assess specific and critical cross-field outcomes. During integrated assessments the assessor should make use of formative and summative assessment methods and should assess combinations of practical, foundational and reflexive competencies.

Recognition of prior learning

This Qualification may be achieved in part or completely through the recognition of prior learning, which includes formal, informal and non-formal learning and work experience. Where RPL is required the learner will need to prove applied competence in that specific area in order to obtain recognition of that skill and / or knowledge.

Evidence can be presented in a variety of forms, including international or previous local Qualifications, reports, testimonials mentioning functions performed, work records, portfolios, videos of practice and performance records. The assessment methods and tools to be used to assess Prior Learning shall be decided upon jointly by the assessor and the learner.

Moderation options

Anyone assessing a learner against these unit standards must be registered as an assessor with the relevant ETQA.

Any institution offering learning that will enable achievement of these unit standards or will assess these unit standards must be accredited as a provider with the relevant ETQA. Moderation of assessment will be overseen by the relevant ETQA according to the moderation guidelines in the relevant qualification and the agreed ETQA procedures.

Therefore anyone wishing to be assessed against these unit standards may apply to be assessed by any assessment agency, assessor or provider institution, which is accredited by the relevant ETQA.

Qualification Matrix National Certificate: Cigarette Production – NQF Level 3

FUNDAMENTAL			CORE			ELECTIVE		
	Level	Credits		Level	Credits		Level	Credits
Demonstrate understanding of the use of different number bases and measurement units and an awareness of error in the context of relevant calculations (ID9010)	3	2	Apply quality control on cigarettes	3	10	Laminate tipping material	2	5
Use mathematics to investigate and monitor the financial aspects of personal and business issues (ID7456)	3	2	Depict basic details of the Tobacco Processing Industry	2	3	Apply quality control on the final product	3	10
Investigate life and work related problems using data and probabilities (ID9012)	3	5	Prepare cigarette maker for production	3	10	Apply quality control on filter rods	3	10
Demonstrate understanding of real and imaginary numbers and real number systems (ID14106)	3	2	Produce cigarettes	3	19	Supply raw material to production machines	2	5
Identify and work with simple forms of complex numbers (ID 7455)	3	1	Shut down a cigarette maker	3	6			
Describe, apply, analyse and calculate shape and motion in 2-and3-dimensional space in different contexts (ID9013)	3	4	Conduct a cigarette brand change-over	3	3			
Accommodate audience and context needs in oral communication (ID8968)	3	5	Clean a cigarette maker	2	5			
Interpret and use information from texts	3	5	Fill cigarette trays	2	5			

[illegible]



Further Education and Training Certificate: Cigarette Packaging Technology at NQF Level 4

Field: Agriculture and Nature Conservation

Sub-field: Secondary Agriculture

MQF level: 4

Credits: 137

Rationale for the Qualification

This Qualification provides current learners with the opportunity to advance from the Cigarette Packaging – NQF Level 3 Qualification or for persons entering the Tobacco Processing environment and others to obtain an integrated practical and theoretical grounding in the maintaining of the cigarette packaging process and the functions thereof. This will ensure a portable, nationally recognized Qualification that will:-

- * Improve the quality of safety in the work environment.
- Optimally utilize resources in the packaging industry.
- Lead to transformation in economic growth and social development.

The typical range of learners is the currently employed, unemployed and other persons, who want to enter a learning programme to obtain a National Certificate in Cigarette Packaging Technology at NQF Level 4, to continue building a career path in this industry.

Improved levels of knowledge and skills lead to greater ability to produce at more competitive costs and better quality, which will impact favorably both on the society and the economy of the country.

Purpose of the Qualification:

This Qualification is aimed at level 4 on the National Qualification Framework. It provides learners with the opportunity to obtain competence in specialised cigarette packaging process technology namely, maintaining the packaging process and equipment to improve product quality and the opportunity for learners to grow in this specific field.

The fundamental learning, which learners will acquire, will allow them to be able to compile verbal and written communications and perform basic calculations. This Qualification complies with the objectives of the NQF with regard to facilitating access to, mobility and progression within the cigarette packaging industry.

The Qualification focuses on the skills, knowledge, values and attitude required to progress further in the industry. The intention is to release the potential of people, in order for them to grow, develop and become more competent workers. This Qualification will furthermore add value to the individuals, their workplace and the economy as a whole.

Rules of combination

To obtain this Qualification, all fundamental and core unit standards are compulsory. In addition, a learner must select one of the following combinations from the elective unit standards below:

(1)

- Maintain a display bundle transfer unit
- Maintain a display unit's exit heaters
- Maintain a cigarette packer compression turret
- Maintain a cigarette packer arbor drum
- Maintain a cigarette packer stamp unit

(2)

- Maintain cigarette packer blank folding wheel
- Maintain cigarette packer inner frame unit
- Maintain cigarette packer inner liner folding wheel
- Maintain a metallised paper embossing unit

Access to the Qualification

There are no restrictions placed on learners that may prevent them from gaining access to this Qualification except those that are mentioned under learning assumed to be in place.

Purpose of the Qualification:

This Qualification is aimed at level 4 on the National Qualification Framework. It provides learners with the opportunity to obtain competence in specialised cigarette packaging process technology namely, maintaining the packaging process and equipment to improve product quality and the opportunity for learners to grow in this specific field.

The fundamental learning, which learners will acquire, will allow them to be able to compile verbal and written communications and perform basic calculations. This Qualification complies with the objectives of the NQF with regard to facilitating access to, mobility and progression within the cigarette packaging industry.

The Qualification focuses on the skills, knowledge, values and attitude required to progress further in the industry. The intention is to release the potential of people, in order for them to grow, develop and become more competent workers. This Qualification will furthermore add value to the individuals, their workplace and the economy as a whole.

Learning assumed to be in place:

It is assumed that learners wishing to enter a programme leading to this qualification have demonstrated competence in mathematical literacy, communication and languages at NQF Level 3.

Exit level outcomes **and** associated assessment criteria

Exit level outcome 1

- Identify, explain and execute the functions/duties/responsibilities required in the maintenance of a packaging machine in order to sustain optimum production levels and minimize down time and product loss.

Associated Assessment Criteria

- Work site procedures and manufacture's specifications for a packaging machine are identified and explained.
- Fault finding methods and techniques for a packaging machine are applied in the establishing of functional and quality deviations.
- Machinery minor repairs, adjustments and maintenance for a packaging machine are conducted in accordance with work site procedures and manufacture's specifications
- Consequences of not adhering to work site procedures and manufacture's specifications for a packaging machine are explained.
- Environment, health and safety measures are complied with during the implementation of machinery minor repairs, adjustments and maintenance for a packaging machine.

Exit level outcome 2

- Identify, explain and execute the functions/duties/responsibilities required in the maintenance of a film wrapping machine in order to sustain optimum production levels and minimize down time and product loss.

Associated Assessment Criteria

- Work site procedures and manufacture's specifications for a film wrapping machine are identified and explained.
- Fault finding methods and techniques for a film wrapping machine are applied in the establishing of functional and quality deviations.
- Machinery minor repairs, adjustments and maintenance for a film wrapping machine are conducted in accordance with work site procedures and manufacture's specifications.
- Consequences of not adhering to work site procedures and manufacture's specifications for a film wrapping machine are explained.
- Environment, health and safety measures are complied with during the implementation of machinery minor repairs, adjustments and maintenance for a film wrapping machine.

Exit level outcome 3

- Identify, explain and execute the functions/duties/responsibilities required in the maintenance of display bundle and over wrapping machines in order to sustain optimum production levels and minimize down time and product loss.

Associated Assessment Criteria

- Work site procedures and manufacture's specifications for display bundle and over wrapping machines are identified and explained.
- Fault finding methods and techniques for display bundle and over wrapping machines are applied in the establishing of functional and quality deviations.
- Machinery minor repairs, adjustments and maintenance for display bundle and over wrapping machines are conducted in accordance with work site procedures and manufacture's specifications
- Consequences of not adhering to work site procedures and manufacture's specifications for display bundle and over wrapping machines are explained
- Environment, health and safety measures are complied with during the implementation of machinery minor repairs, adjustments and maintenance for display bundle and over wrapping machines.

Exit level outcome 4

- Identify, explain and execute the functions/duties/responsibilities required in the maintenance of a case packaging machine in order to sustain optimum production levels and minimize down time and product loss.

Associated Assessment Criteria

- Work site procedures and manufacture's specifications for a case packaging machine are identified and explained.
- Fault finding methods and techniques for a case packaging machine are applied in the establishing of functional and quality deviations.
- Machinery minor repairs, adjustments and maintenance for a case packaging machine are conducted in accordance with work site procedures and manufacture's specifications.
- Consequences of not adhering to work site procedures and manufacture's specifications for a case packaging machine are explained.
- Environment, health and safety measures are complied with during the implementation of machinery minor repairs, adjustments and maintenance for a case packaging machine.

Exit level outcome 5

- Perform scheduled production machine services to ensure serviceability and readiness for production.

Associated Assessment Criteria

- Scheduled services are planned and prepared for according to work site requirements.
- Production machines are serviced in accordance with scheduled plans.

- Services on production machines are conducted and completed in accordance with work site procedures and manufacture's specifications.
- The machine is prepared for the commencement of production in accordance with work site procedures and time frames.

Exit level outcome 6

- Demonstrate the ability to function effectively in a team comprising of multi-cultural members.

Associated Assessment Criteria

- Own particular team structure and purpose are identified and explained.
- Roles and responsibilities of each team member are identified and described.
- External (environmental) factors that influence the workings and success of the team are explained and assessed.
- The ability to perform in a team is achieved and maintained.

Criteria for internal and external assessors

Assessors need experience in the following areas:

Interpersonal skills, subject matter and assessment.

The assessor needs to be competent in the planning and conducting assessment of learning outcomes and design and develop assessments as described in the relevant unit standards. The subject matter experience must be well developed within the field of cigarette packaging.

The subject matter experience of the assessor can be established by recognition of prior learning.

Assessors need to be registered with the relevant Education and Training Quality Assurance Body.

international comparability

Website benchmarking was done with Australia, Canada, New Zealand, Ireland and Scotland but none could be found. Furthermore, the International Tobacco Industry was also investigated for relevant Qualification information, but even within the Industry, nothing could be found to make Industry specific comparisons.

Therefore this could be regarded as one of the first formalised Qualifications in cigarette packaging technology.

Integrated Assessment Criteria

Learners will produce evidence of the following:

- Verbal and written explanations of reasons for adhering to operational and work site procedures as well as statutory requirements, adhering to specific sequence of operations, identifying deviations, taking corrective actions and recording relevant data, and reporting deviations outside the jobholder's responsibility.
- Demonstrations of a range of operational actions relating to the maintaining of cigarette packaging machinery and applying general safety in the work place.

- Oral or written questioning regarding the reflexive competencies within the Qualification:

If the identifying and solving of problems, team work, organising one-self, the using of applied science, the implication of actions and reactions in the world as a set of related systems are not clear from the observation a method of oral questioning or a cases study should be applied to determine the whole person development and integration of applied knowledge and skills.
- A portfolio of evidence is required to prove the practical, foundational and reflexive competencies of the learner which may include production and quality statistics.
- Assessors and moderators should develop and conduct their own integrated assessment by making use of a range of formative and summative assessment methods. Assessors should assess and give credit for the evidence of learning that has already been acquired through formal, informal and non-formal learning and work experience.
- Unit standards in the Qualification must be used to assess specific and critical cross-field outcomes. During integrated assessments the assessor should make use of formative and summative assessment methods and should assess combinations of practical, foundational and reflexive competencies.

Recognition of prior learning (RPL)

This Qualification may be achieved in part or completely through the recognition of prior learning, which includes formal, informal and non-formal learning and work experience.

Moderation

Moderation includes internal and external moderation of assessments. Internal and external moderation systems must ensure that all assessors conduct assessments that are credible, fair, reliable, consistent, adequate and practical.

Internal and external moderation systems must provide learning opportunities that are transparent, affordable and enhancing development in the field and sub-field of the National Qualifications Framework.

The accredited provider with the relevant ETQA must be able to provide internal moderation.

External moderation will be done by the relevant ETQA.

Qualification Matrix Further Education and Training Certificate: Cigarette Packaging Technology – NQF Level 4

FUNDAMENTAL				CORE			ELECTIVE		
	Level	Credits		Level	Credits		Level	Credits	
Use mathematics to investigate and monitor the financial aspects of personal, business, and national issues (ID7468)	4	2	Function in a team (ID8561)	4	3	Maintain a display bundle transfer unit	4	3	
Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings of life-related problems (ID9015)	4	5	Maintain a cigarette packer bundle transport unit	4	3	Maintain a display unit's exit heaters	4	3	
Work with a wide range of patterns and inverses of functions and solve related problems	4	6							
Measure, estimate and calculate physical quantities and explore, critique and prove geometrical relations in two and three-dimensional space in the life and workplace of the audit with increasing responsibilities (ID9016)	4	4	Maintain a cigarette packer metallised paper feed and cutting unit	4	4	Maintain a cigarette packer compression turret	4	3	
Engage in sustained oral communication and evaluate spoken texts (ID8974)	4	5	Maintain a cigarette packer hopper	4	3	Maintain a cigarette packer arbor drum	4	5	
Read, analyse and respond to variety of texts (ID8975)	4	5	Perform a scheduled production machine service	4	6	Maintain a cigarette packer stamp unit	4	2	
Write for a wide range of contexts (ID8976)	4	5	Maintain a display cartoning unit	4	3	Maintain a cigarette packer blank folding wheel	4	5	
Use language and communication in occupational learning programmes (ID8979)	4	5	Maintain a cigarette packer packet reservoir	4	3	Maintain a cigarette packer inner frame unit	4	4	

Accommodate audience and context needs in oral communication (ID8968)	3	5	Maintain a cigarette packer label and blank feed unit	4	8	Maintain a cigarette packer inner liner folding wheel	4	2
Interpret and use information from texts (ID8969)	3	5	Maintain an over-wrapping unit	4	2	Maintain a metallised paper embossing unit	4	5
Write texts from a range of communicative contexts (ID8970)	3	5	Maintain a cigarette packer drying drums	4	2			
Analyse and respond to a variety of literary texts (ID8971)	3	5	Maintain case packer and sealer unit	4	10			
			Maintain a cigarette packer exit conveyors	4	3			
			Maintain a film wrapper packet infeed unit	4	5			
			Maintain a film wrapper unwinding and cutting unit	4	4			
			Maintain a film wrapper folding station	4	5			
			Maintain first and second elevators	4	1			
		57			65			32