No. 846 15 August 2008



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

Bomb Disposal and Explosive Control

registered by Organising Field 08, Law Military Science and Security, publishes the following Qualification and Unit Standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the Qualification and Unit Standards. The full Qualification and Unit Standards can be accessed via the SAQA web-site at www.saqa.org.za. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, SAQA House, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the Qualification and Unit Standards should reach SAQA at the address below and **no later 15 September 2008.** All correspondence should be marked **Standards Setting – SGB for Bomb Disposal and Explosives Control** and addressed to

The Director: Standards Setting and Development

SAQA
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DIRECTOR: STANDARDS SETTING AND DEVELOPMENT



QUALIFICATION: National Diploma: Bomb Disposal

SAQA QUAL ID	QUALIFICATION TITLE				
63229	National Diploma: Bomb [National Diploma: Bomb Disposal			
ORIGINATOR		PROVIDER			
SGB Bomb Disposal and I	Explosives Control				
QUALIFICATION TYPE	FIELD	FIELD SUBFIELD			
National Diploma	8 - Law, Military Science and Security	Safety in Society			
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUAL CLASS		
Undefined	245	Level 5	Regular-Unit Stds Based		

This qualification does not replace any other qualification and is not replaced by another qualification.

PURPOSE AND RATIONALE OF THE QUALIFICATION

Purpose:

This is the first qualification for bomb disposal officials. The purpose of this qualification is for the learner to obtain their initial nationally recognised qualification in bomb disposal and explosives control.

The Fundamental and Core Component of this qualification will equip the learner with the required competencies of recognising explosive devices in order to safely dispose of them thus providing society with a safe environment were economic development and transformation can manifest.

A learner acquiring this qualification will have skills and knowledge to:

- > Analyse the impact of legislation on the bomb disposal and explosives control environment.
- > Handle bomb incidents and explosives control.
- > Demonstrate the ability to make critical decisions under pressure.
- > Apply safety measures during bomb disposal and explosives control.

Rationale:

This qualification reflects the workplace needs for bomb disposal officials in the sub-fields Safety in Society and Sovereignty of the State. The typical learner completing this qualification will either come from the junior and middle ranks of the South African Police Services or the South African National Defence Force.

This qualification allows such a learner to specialise in the field of bomb disposal and explosives control thus providing them with a specialised career path in the South African Police Services or the South African National Defence Force or alternatively, upon further learning, to seek employment opportunities in commercial mining and commercial blasting.

The qualification benefits society by providing South Africa with competent and professional bomb disposal officials who are able to react to, handle and investigate any bomb threat and/or

incident. Further more, learners will be empowered to dispose of explosive ordnances and weapons and/or weapon cashes that could pose a hazard to society.

This qualification will standardise learning in the above mentioned services and enhance the quality of the training in bomb disposal. The qualification will allow for transformation within the broader Safety in Society and Sovereignty of the State environment through the recognition of prior learning that will allow for the recognition of formal, non-formal and in-formal learning leading to the achievement of a national qualification.

RECOGNIZE PREVIOUS LEARNING?

Υ

LEARNING ASSUMED IN PLACE

- > Communication at NQF Level 4.
- > Mathematics at NQF Level 4.
- > Physical Science at NQF Level 4.

Recognition of Prior Learning:

The structure of this Unit Standard based Qualification makes the Recognition of Prior Learning possible, if the learner is able to demonstrate competence in the knowledge, skills, values and attitudes implicit in this Qualification. Recognition of Prior Learning will be done by means of an Integrated Assessment as mentioned in the previous paragraph.

This Recognition of Prior Learning may allow:

- > For accelerated access to further learning.
- > Gaining of credits towards a unit standard.
- > For full or partial recognition of the Qualification.

All recognition of Prior Learning is subject to quality assurance by the relevant accredited Education, Training, Quality and Assurance Body and is conducted by a registered workplace assessor. Because the standards are only core and fundamental, these standards may have been acquired in a range of economic sectors and these will be recognised as appropriate.

Access to the Qualification:

There is an open access to this qualification for learners:

- > Who have successfully completed the National Senior Certificate or the National Certificate: Vocational, NQF Level 4.
- > Who have successfully completed the National Certificate: Policing, NQF Level 5 or the FETC: Military Operations.
- > Who meet the psychological and physical requirements of a bomb disposal officer.

QUALIFICATION RULES

The qualification consists of a Fundamental, a Core and an Elective Component.

To be awarded the Qualification learners are required to obtain a minimum of 245 credits as detailed below:

Fundamental Component:

The Fundamental Component consists of Unit Standards to the value of 26 credits all of which are compulsory.

Source: National Learners' Records Database

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Core Component:

The Core Component consists of Unit Standards to the value of 194 credits all of which are compulsory.

Elective Component:

The Elective Component consists of a number of specialisations each with its own set of Unit Standards. Learners are to choose a specialisation area and complete all the Unit Standards within that specialisation. The specialisations are:

Policing Skills 27 credits:

- > ID 120483: Conduct preliminary investigations.
- > ID 120485: Receive and attend to complaints.
- > ID 120487: Use firearms in a military and law enforcement environment.
- > ID 120476: Adhere to professional conduct and organizational ethics.

Handling of Dangerous Goods 25 credits:

- > ID 119032: Identify and deal with dangerous goods.
- > ID 244031: Manage dangerous goods logistics.

Explosives Control 25 credits:

- > ID 117478: Demonstrate an understanding of explosives control.
- > ID 117476: Demonstrate an understanding of explosives classification, marking and packaging requirements.
- > ID 117470: Demonstrate an understanding of explosives transportation legislation and regulations.
- > ID 117465: Demonstrate an understanding of explosives storage legislation and regulations.
- > ID 117464: Demonstrate an understanding of explosives importation and exportation requirements.
- > ID 117459: Control the use of explosives on a blasting site.
- > ID 117478: Control the use of and trade in pyrotechnics.

EXIT LEVEL OUTCOMES

- 1. Analyse and enforce legislation in the bomb disposal and explosives control environment.
- > Note: The term Act includes all accompanying Regulations.
- 2. Handle bomb incidents and explosives control.
- 3. Demonstrate the ability to make critical decisions under pressure.
- 4. Apply safety measures during bomb disposal and explosives control.

Critical Cross-Field Outcomes:

This qualification promotes, in particular, the following Critical Cross-Field Outcomes. The way in which the Critical Cross-Field Outcomes are addressed is presented in detail in the unit standards:

Identifying and solving problems in which responses display that responsible decisions using critical and creative thinking have been made when:

- > Handling bomb incidents and explosives control.
- > Demonstrating the ability to make critical decisions under pressure.
- > Applying safety measures with bomb disposal and explosives control.

Working effectively with others as a member of a team, group, organization, or community during:

> The handling of bomb incidents and explosives control.

Organizing and managing oneself and one's activities responsibly and effectively when:

- > Handling bomb incidents and explosives control.
- > Demonstrating the ability to make critical decisions under pressure.
- > Applying safety measures with bomb disposal and explosive control.

Communicate effectively using visual, mathematical and/or language in the modes of oral and/or written persuasion when:

- > Analysing the impact of legislation on the bomb disposal and explosives control environment.
- > Handling bomb incidents and explosives control.
- > Demonstrating the ability to make critical decisions under pressure.
- > Applying safety measures with bomb disposal and explosives control.

Collecting, analyzing, organizing and critically evaluating information to better understand and explain:

- > The impact of legislation on the bomb disposal and explosives control environment.
- > The abilities required to make critical decisions under pressure.

Using science and technology effectively and critically, showing responsibility towards the environment and health of others when:

- > Handling bomb incidents and explosives control.
- > Applying safety measures with bomb disposal and explosives control.

Demonstrating an understanding of the world as a set of related systems by recognizing that problem-solving contexts do not exist in isolation when:

> Analysing the impact of legislation on the bomb disposal and explosives control environment.

ASSOCIATED ASSESSMENT CRITERIA

Associated Assessment Criteria for Exit-Level-Outcome 1:

- 1.1. The Explosives Act is analysed in order to determine which parts are applicable in the handling of explosives.
- > Range: Handling refers to but is not limited to acquisition, storage, use, transportation, import and export.
- 1.2. The Occupational Health and Safety Act is analysed in order to determine which parts are applicable in the handling of explosives.
- 1.3. An explanation is given of the South African Constitution in terms of human rights.
- 1.4. Explosives Control legislation is imposed according to the Explosives Act.

Associated Assessment Criteria for Exit-Level-Outcome 2:

- 2.1. Risks and threats are assessed to determine methods of handling explosives and bomb incidents.
- 2.2. Characteristics of explosives and bombs are examined in order to ascertain their limitations, possible application and operating principles.
- 2.3. An explosive device is neutralised using bomb disposal techniques and explosives control measures.
- 2.4. Post blast investigation is conducted for forensic and research purposes.
- 2.5. New trends are examined to enable future developments in the field of bomb disposal and explosives.

Associated Assessment Criteria for Exit-Level-Outcome 3:

- 3.1. Strategies to handle stressful situations are applied so as to ensure safety at all times.
- 3.2. Independent decisions made are justified while still displaying the ability to work as a member of team.
- 3.3. An operational plan is drawn up for bomb disposal and explosives control operations.
- 3.4. Bomb disposal and explosives control scenarios are assessed in order to influence future decisions and actions.
- 3.5. Self-readiness is evaluated in order to determine operational preparedness.

Associated Assessment Criteria for Exit-Level-Outcome 4:

- 4.1. Safety equipment is used according to standard operating procedures.
- 4.2. Safety prescripts are enforced in line with the Explosives Act and standard operating procedures.
- 4.3. Situational awareness is demonstrated so as to ensure information is gathered for decision making.
- 4.4. The potential immediate environmental impact of explosives and explosions are analysed for safety purposes.
- 4.5. Safety surveys are conducted so as to ensure compliance with the Explosives Act.
- > Range: Surveys refer to but are not limited to inspections and risks assessments.

Integrated Assessment:

Because assessment practices must be open, transparent, fair, valid, and reliable and ensure that no learner is disadvantaged in any way whatsoever, an integrated assessment approach is incorporated into the Qualification. Learning, teaching and assessment are inextricably linked. Whenever possible, the assessment of knowledge, skills attitudes and values shown in the unit standard should be integrated.

A variety of methods must be used in assessment and tools and activities must be appropriate to the context in which the learner is working. Where it is not possible to assess the learner in the workplace or on-the-job, simulations, case studies, role-plays and other similar techniques should be used to provide a context appropriate to the assessment.

The term "Integrated Assessment" implies that theoretical and practical components should be assessed together. During integrated assessments the assessors should make use of formative and summative assessment methods and assess combinations of practical, applied, foundational and reflective competencies.

Assessors and moderators should make 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.

Assessment should ensure that all specific outcomes, embedded knowledge and critical cross-field outcomes are assessed. The assessment of the critical cross-field outcomes should be integrated with the assessment of specific outcomes and embedded knowledge.

INTERNATIONAL COMPARABILITY

The international comparison focused specifically on information received from bomb disposal officials in the law enforcement environment. International comparison was conducted firstly from staff reports compiled by bomb disposal officials visiting foreign various police forces and secondly by means of a questionnaire which was completed by bomb disposal officers who had visited foreign countries.

Best Practice:

The following countries were chosen for the international comparison fro the following reasons:

Israel:

> Due to the constant threat of bombings Israel has developed a highly skilled and competent bomb disposal system. This country currently presents training to specialised members of the police service to be able to dispose of bombs in the most difficult of circumstances.

Scotland:

> Scotland has developed and registered qualifications in the field of explosives and bomb disposal techniques.

The United Kingdom:

> The United Kingdom has a well-established police service that has bomb disposal experience stemming from the Northern Ireland conflict and is renowned for its expertise in national and international operations in bomb disposal and investigation.

India:

> Due to the ongoing conflict with Pakistan, the Indian Defence Force has developed a formal qualification for bomb disposal.

United Stated Of America:

> With the increased threat of terrorism the United States of America, the Federal Bureau of Investigation and the Bureau of Alcohol, Tobacco and Firearms have become world wide specialists in bomb disposal.

Australia:

Australian has developed standards for bomb disposal which are registered on the Australian Qualifications Framework.

Israel:

The specialised topics regarding bomb disposal presented by the Israeli Police Service include:

- > Identification of explosives.
- > Improvised explosive devices.
- > Explosive ordnance.
- > Searching and sweeping.

Source: National Learners' Records Database

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- > Bomb disposal.
- > Post blast investigations.
- > Electronics.
- > Switches and trigger devices.
- > Robotics.
- > Explosives vulnerability.

Findings: The National Diploma: Bomb Disposal, NQF Level 5 covers most of the outcomes of the Israeli training. However the National Diploma: Bomb Disposal, NQF Level 5 qualification is more specific and adds learning such as:

- > Electronics.
- > Switches and trigger devices.
- > Robotics.
- > Explosives vulnerability.

Scotland:

Within Scotland the following bomb disposal qualification is in existence:

> G71Y 22: Level 2: Contribute to the Search and/or Disposal Function.

This qualification has the following mandatory units which have the following outcomes:

- > D9V6 04:
- > Use and Maintain Search or Munition Clearance Equipment.
- > Gather and prepare search or munition clearance equipment.
- > Operate search and or munition clearance equipment.
- > Maintain search and or munition clearance equipment.

> D1VG 04:

- > Work Safely.
- > Minimise the risks to health and safety.
- > Minimise the risks to the environment in the workplace.

> D9TF 04:

- > Contribute to Finding Specified Targets.
- > Assist in gathering and analysing information on the location of specified targets.
- > Assist in defining the specific area to be searched.
- > Record actions taken.

> D9TK 04:

- > Contribute to Locating and Gaining Access to Specified Targets.
- > Contribute to gaining safe access to specified targets.
- > Contribute to confirming or denying the presence of specified targets and other risks.

> D9TJ 04:

- > Contribute to Locating and Gaining Access to Munitions.
- > Contribute to the detection of possible munitions and other risks.
- > Assist in locating munitions or confirming their absence.
- > Contribute to the identification of the specific hazard posed by the environs in which munitions are located.
- > Contribute to gaining safe access to munitions.

> D9TL 04:

- > Contribute to Removing the Threat of Munitions.
- > Contribute to confirming the threat posed by munitions.
- > Contribute to the planning and implementation of protective measures.
- > Assist in the disposal of munitions.
- > Optional units.

> D9TH 04:

- > Contribute to Finding the Disposition of Munitions.
- > Assist in gathering and analysing information on the location of munitions.
- > Assist in defining the specific area to be searched.
- > Record the possible location and general disposition of munitions.

> D9TY 04:

- > Move or Transport Munitions.
- > Assist in moving munitions within the designated area.
- > Transport munitions.
- > Additional units.

> D9TR 04:

- > Evacuate Casualties.
- > Assess the nature of the evacuation action needed.
- > Implement evacuation process.

Finding: It is clear from the above-mentioned that the Scottish Qualification solely focuses on the disposing of bombs. The National Diploma: Bomb Disposal, NQF Level 5 covers much wider aspect regarding bomb disposal such as analysing the impact of legislation on the bomb disposal and explosives control environment, demonstrating the technical competencies necessary to handle bomb incidents and explosives control, demonstrating the ability to make critical decision making under pressure as well as applying safety measures within a bomb disposal and explosives control environment.

United Kingdom:

Bomb disposal in the United Kingdom is a function of the British Army. The Defence Explosive Ordnance Disposal School of the British Army's Royal Engineers Corps offer bomb disposal programmes at two levels the first level being an intermediate level and the second level being an advanced level.

The first level bomb disposal programme concentrates purely on the disposal of explosive munitions.

The second level bomb disposal programme concentrates more on the disposal of explosive devices both improvised and manufactured.

Finding: The National Diploma: Bomb Disposal, NQF Level 5 covers both the intermediate level and the advanced level of the bomb disposal programmes offered in the British Army.

India:

Indian Police Service:

As in the United Kingdom bomb disposal is the primary responsibility of the Indian Army. The bomb disposal programme offered by the Indian Army covers the following aspects:

- > Detecting improvised explosive devices.
- > Arrange isolation, neutralisation, rendering safe and disposal of the explosive devices.

 Source: National Learners' Records Database Qualification 63229 24/07/2008

- > Carry out anti-sabotage checks.
- > Assist investigating agencies in analysing composition of the explosive substance and the design of explosive devices.
- > Orientation training in detection and handling of explosive substances.
- > Liaison abilities.
- > Offer expert advice on all matters pertaining to explosives.
- > Render assistance in dealing with bombs/explosives and the threat thereof.
- > Keep abreast with latest developments in the world pertaining to methods employed by terrorists and counter measures thereof including rendering safe procedures.
- > Effective supervision of Bomb Detection and Disposal Units.

Finding: Although India presents more detailed aspects of bomb disposal, it is very clear that the National Diploma: Bomb Disposal, NQF Level 5 covers most of these aspects and additional competencies such as post blast investigation and electronic and electronic devices.

United States of America:

The Federal Bureau of Investigation's Bomb Data Centre provides bomb technician training to governmental organisations. During the programme, training is provided in the handling of, use and the safe disposal of explosives, pyrotechnic mixtures, improvised explosive devices and various chemicals. Technicians also are trained and certified to handle hazardous materials and understand the complexities of nuclear, biological, chemical and radiological attacks.

At the Redstone Army Arsenal Hazardous Devices School in Huntsville, Alabama the Explosive Ordnance Clearance Agent Course is resented to Army personnel. The purpose of the course is to train Combat Engineers and select Engineer Officers with the basic skills and knowledge required to perform as Explosive Ordnance Clearance Agents.

This course trains students in the following areas: react to the Unexploded Ordnance Hazard, Explosive Ordnance Clearance Agents roles and responsibilities, ordnance terminology, safety, colour codes and markings, explosives and explosive effects, ordnance identification, remote charge placement, common improvised explosive devise components, protective measures, reconnaissance, marking and disposal, reporting and current IED trends.

In the state of Florida, formal learning programmes are presented to police officers in the field of bomb disposal. The programme covers the following aspects:

- > A basic understanding of bombing trends and bomber profiles.
- > A basic understanding of explosives, explosions and their effects.
- > A general understanding of the current physics behind explosives detection and associated problems.
- > Developing a bomb threat plan to cover vulnerability assessments, contingency planning, evacuations, searches, and damage control.
- > Providing basic training for personnel to handle and cope with bomb threats.
- > A general understanding in the basics of threat assessment and management decision making for bomb threats or bombing incidents.

Findings: The programme presented covers all aspects in the National Diploma: Bomb Disposal, NQF Level 5 with the exception of advanced training in rocket systems and understanding the complexities nuclear, biological, chemical and radiological attacks.

In terms of the Army's Explosive Ordnance Clearance Agent Course the National Diploma: Bomb Disposal, NQF Level 5 addresses all key aspects as presented.

Compared with the Florida State's learning programme the following content is additional to the National Diploma; Bomb Disposal, NQF Level 5.

Source: National Learners' Records Database

- > Analysing the impact of legislation on the bomb disposal and explosives control environment.
- > The technical competencies necessary to handle bomb incidents and explosives control.
- > Apply safety measures within a bomb disposal and explosive control environment.

Australia:

The following unit standards were found within the Australian qualifications framework and compared to the exit level outcomes and unit standards within the National Diploma: Bomb Disposal, NQF Level 5.

- > PUABTE009: Manage evidence at improvised hazardous device incidents.
- > PUABTE002A: Use and maintain specialists equipments.
- > PUABTE001A: Manage information related to reported improvised hazardous device incidents.
- > PUABTE008: Respond to a chemical, biological, or radiological improved hazardous device incidents.
- > PUABTE004A: Conduct post incident improvised hazardous device information requirements.
- > PUABTE003A: Manage improvised hazardous device incidents.

Findings: In comparing with the abovementioned unit standards, it become evident that similar unit standards in the National Diploma: Bomb Disposal, NQF Level 5 contain more detail and learning.

Conclusion:

Taking into consideration all aspects as mentioned above the National Diploma: Bomb Disposal, NQF Level 5 addresses more specific competencies such as the analysis of the impact of legislation on the bomb disposal and explosives control environment, demonstrating the technical competencies necessary to handle bomb incidents and explosives control, demonstrating the ability to make critical decisions under pressure and the application of safety measures within a bomb disposal and explosive control environment. This qualification is equal to and in most instances surpasses that which is presented internationally.

ARTICULATION OPTIONS

This Qualification lends itself to both vertical and horizontal articulation possibilities.

Horizontal articulation is possible with the following Qualifications:

- > ID 50122: National Certificate: Policing, NQF Level 5.
- > ID 57651: National Certificate: Forensic Science, NQF Level 5.

Vertical articulation is possible with the following Qualifications:

- > ID 62408: National Diploma: Policing, NQF Level 6.
- > ID 49783: National Diploma: Joint and Multi National Operations, NQF Level 6.

MODERATION OPTIONS

- > Anyone assessing a learner or moderating the assessment of a learner against this Qualification must be registered as an assessor with the relevant Education, Training, Quality and Assurance (ETQA) Body.
- > Any institution offering learning that will enable the achievement of this Qualification must be accredited as a provider with the relevant ETQA.

Source: National Learners' Records Database

- > Assessment and moderation of assessment will be overseen by the relevant ETQA according to the ETQA's policies and guidelines for assessment and moderation, in terms of agreements reached around assessment and moderation between ETQA's (including professional bodies), and in terms of the moderation guidelines detailed immediately below.
- > Moderation must include both internal and external moderation of assessments and exit points of the Qualification, unless ETQA policies specify otherwise. Moderation should also encompass achievement of the competence described both in individual unit standards, the integrated competence described in the Qualification and will include competence within core and the elective standards relevant to the economic sector.

Anyone whishing to be assessed against this qualification may apply to be assessed by any assessment agency, assessor or provider institution that is accredited by the relevant ETQA.

CRITERIA FOR THE REGISTRATION OF ASSESSORS

For an applicant to register as an assessor, the applicant needs:

- > A minimum of 5 (five) year's practical, relevant occupational experience.
- > A relevant Qualification at NQF Level 6 or higher.
- > To be registered as an assessor with the relevant ETQA.

NOTES

N/A

UNIT STANDARDS

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Fundamental	9407	Communicate with clients and discuss work	Level 5	5
Fundamental	257282	Demonstrate an understanding of explosives	Level 5	5
Fundamental	15096	Demonstrate an understanding of stress in order to apply strategies to achieve optimal stress levels in personal and work situations	Level 5	5
Fundamental	258015	Demonstrate an understanding of the dynamics in the field of explosives	Level 5	5
Fundamental	120492	Demonstrate the application of performance management	Level 5	6
Core	116486	Explain personal and social responsibility in decision making	Level 4	5
Core	257279	Apply chemical, biological and radiological countermeasures	Level 5	10
Core	257278	Apply knowledge of switches and triggering devices	Level 5	11
Core	257277	Apply robotics in the bomb disposal field	Level 5	10
Core	242707	Assimilate and present specialised evidence in a court of law	Level 5	6
Core	257276	Breach an obstacle using explosives	Level 5	9
Core	258018	Conduct a post-blast investigation	Level 5	11
Core	117460	Conduct an analysis of explosives vulnerability	Level 5	4
Core	257275	Conduct bomb disposal	Level 5	15
Core	258017	Conduct briefing and debriefing sessions	Level 5	3
Core	258016	Conduct searching and sweeping	Level 5	10
Core	258014	Demonstrate an understanding of Improvised Explosive Devices	Level 5	12
Core	258013	Demonstrate knowledge of blasting accessories	Level 5	8
Core	258009	Demonstrate knowledge of explosive ordnances	Level 5	9
Core	257735	Demonstrate the use of demolition techniques	Level 5	8
Core	257283	Demonstrate the use of electronic systems	Level 5	9
Core	257284	Demonstrate the use of initiating systems	Level 5	8
Core	257281	Dispose of explosives and munitions	Level 5	9
Core	257280	Handle bomb incidents	Level 5	3
Core	258008	Handle mines	Level 5	8
Core	117466	Identify and explain non-destructive testing techniques	Level 5	9
Core	253980	Investigate a crime or incident	Level 5	8
Core	257736	Secure caches	Level 5	9

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Elective	120476	Adhere to professional conduct and organisational ethics	Level 5	4
Elective	120483	Conduct preliminary investigations	Level 5	6
Elective	117459	Control the use of and trade in pyrotechnics	Level 5	4
Elective	117464	Control the use of explosives on a blasting site	Level 5	4
Elective	117476	Demonstrate an understanding of explosives classification, marking and packaging requirements	Level 5	5
Elective	117478	Demonstrate an understanding of explosives control	Level 5	2
Elective	117465	Demonstrate an understanding of explosives importation and exportation requirements	Level 5	2
Elective	117470	Demonstrate an understanding of explosives storage legislation and regulations	Level 5	4
Elective	117473	Demonstrate an understanding of explosives transportation legislation and regulations	Level 5	4
Elective	119032	Identify and deal with dangerous goods	Level 5	13
Elective	244031	Manage dangerous goods logistics	Level 5	12
Elective	120485	Receive and attend to complaints	Level 5	5
Elective	120487	Use firearms in a military and law enforcement environment	Level 5	12

LEARNING PROGRAMMES RECORDED AGAINST THIS QUALIFICATION None



UNIT STANDARD:

Conduct bomb disposal

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
257275	Conduct bomb disposal	Conduct bomb disposal			
ORIGINATOR		PROVIDER			
SGB Bomb Disposa	al and Explosives Control				
FIELD		SUBFIELD			
8 - Law, Military Science and Security		Safety in Society			
ABET BAND	UNIT STANDARD TYPE	E NQF LEVEL CREDITS			
Undefined	Regular	Level 5	15		

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117462	Conduct and execute bomb disposal	Level 5	17	Will occur as soon as 257275 is registered

SPECIFIC OUTCOME 1

Analyse bomb disposal techniques.

SPECIFIC OUTCOME 2

Use bomb disposal equipment.

SPECIFIC OUTCOME 3

Prepare the charges.

SPECIFIC OUTCOME 4

Dispose of bombs.

	ID	QUALIFICATION TITLE	LEVEL
Core	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Breach an obstacle using explosives

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
257276	Breach an obstacle using exp	Breach an obstacle using explosives			
ORIGINATOR		PROVIDER			
SGB Bomb Disposa	al and Explosives Control	and Explosives Control			
FIELD	SUBFIELD				
8 - Law, Military Sc	ience and Security	Safety in Society			
ABET BAND	UNIT STANDARD TYPE	E NQF LEVEL CREDITS			
Undefined	Regular	Level 5	9		

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117477	Apply explosives tactically for the breaching of obstacles	Level 5	9	Will occur as soon as 257276 is registered

SPECIFIC OUTCOME 1

Analyse the obstacle.

SPECIFIC OUTCOME 2

Prepare breaching charges.

SPECIFIC OUTCOME 3

Apply breaching techniques.

ID	QUALIFICATION TITLE	LEVEL
Core 63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Apply robotics in the bomb disposal field

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
257277	Apply robotics in the bomb di	sposal field			
ORIGINATOR		PROVIDER			
SGB Bomb Disposa	al and Explosives Control				
FIELD		SUBFIELD			
8 - Law, Military Sci	8 - Law, Military Science and Security				
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS		
Undefined	Regular	Level 5	10		

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117479	Apply the dynamics of robotics in the bomb disposal	Level 5	10	Will occur as soon as
	field			257277 is registered

SPECIFIC OUTCOME 1

Describe the functionality and components of the remote operated vehicle.

SPECIFIC OUTCOME 2

Conduct maintenance.

SPECIFIC OUTCOME 3

Identify possible hazards and operating limitations.

SPECIFIC OUTCOME 4

Deploy and recover operationally.

	ID	QUALIFICATION TITLE	LEVEL
Core	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Apply knowledge of switches and triggering devices

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
257278	Apply knowledge of switches	Apply knowledge of switches and triggering devices			
ORIGINATOR	PŘŎVIDĚR				
SGB Bomb Disposa	al and Explosives Control				
FIELD	SUBFIELD				
8 - Law, Military Sci	ary Science and Security Safety in Society				
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS		
Undefined	Regular	Level 5	11		

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117483	Identify and explain switches and/or triggering devices	Level 5	13	Will occur as soon as 257278 is registered

SPECIFIC OUTCOME 1

Explain the various switches and triggering devices.

SPECIFIC OUTCOME 2

Identify hazards associated with the various switches and triggering devices.

SPECIFIC OUTCOME 3

Construct and neutralise switches and triggering devices.

	ID	QUALIFICATION TITLE	LEVEL
Core	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Apply chemical, biological and radiological countermeasures

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE				
257279	Apply chemical, biological an	d radiological counterm	easures			
ORIGINATOR		PROVIDER				
SGB Bomb Disposa	omb Disposal and Explosives Control					
FIELD	SUBFIELD					
8 - Law, Military Science and Security Safety in S						
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS			
Undefined	Regular	Level 5 10				

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117480	Apply Chemical, Biological and Radiological	Level 5	7	Will occur as soon as
j	Countermeasures			257279 is registered

SPECIFIC OUTCOME 1

Demonstrate knowledge of agents.

SPECIFIC OUTCOME 2

Demonstrate knowledge of radiation.

SPECIFIC OUTCOME 3

Detect agents.

SPECIFIC OUTCOME 4

Apply decontamination procedures.

SPECIFIC OUTCOME 5

Perform sampling.

SPECIFIC OUTCOME 6

Apply countermeasures.

	D	QUALIFICATION TITLE	LEVEL
Core	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Handle bomb incidents

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
257280	Handle bomb incidents	Handle bomb incidents			
ORIGINATOR	PROVIDER				
SGB Bomb Disposa	al and Explosives Control	and Explosives Control			
FIELD	SUBFIELD				
8 - Law, Military Sci	8 - Law, Military Science and Security				
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS		
Undefined	Regular	Level 5	3		

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117487	Handle bomb incidents	Level 5	20	Will occur as soon as 257280 is registered

SPECIFIC OUTCOME 1

Explain bomb incident procedures.

SPECIFIC OUTCOME 2

Describe the utilisation of different resources in a bomb incident.

SPECIFIC OUTCOME 3

Compile a bomb incident plan.

	ID	QUALIFICATION TITLE	LEVEL
Соге	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Dispose of explosives and munitions

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE				
257281	Dispose of explosives and m	Dispose of explosives and munitions				
ORIGINATOR	PROVIDER					
SGB Bomb Disposa	osal and Explosives Control					
FIELD	SUBFIELD					
8 - Law, Military Science and Security		Safety in Society				
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS			
Undefined	Regular	Level 5	9			

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117475	Dispose of explosives and munition	Level 5	9	Will occur as soon as
				257281 is registered

SPECIFIC OUTCOME 1

Demonstrate an understanding of relevant legislation regarding the disposal of explosives and munitions.

SPECIFIC OUTCOME 2

Demonstrate an understanding of disposal methods.

SPECIFIC OUTCOME 3

Demonstrate an understanding of disposal techniques.

SPECIFIC OUTCOME 4

Dispose explosives and munitions.

	ID	QUALIFICATION TITLE	LEVEL
Core	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Demonstrate an understanding of explosives

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
257282	Demonstrate an understandir	g of explosives			
ORIGINATOR		PROVIDER			
SGB Bomb Disposa	and Explosives Control				
FIELD		SUBFIELD			
8 - Law, Military Scie	8 - Law, Military Science and Security				
ABET BAND	UNIT STANDARD TYPE	PE NQF LEVEL CREDITS			
Undefined	Regular	Level 5	5		

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117469	Identify and explain explosives	Level 5	9	Will occur as soon as
				257282 is registered

SPECIFIC OUTCOME 1

Describe explosives.

SPECIFIC OUTCOME 2

Describe improvised explosives.

	ID	QUALIFICATION TITLE	LEVEL
Fundamental	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Demonstrate the use of electronic systems

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
257283	Demonstrate the use of elect	Demonstrate the use of electronic systems			
ORIGINATOR		PROVIDER			
SGB Bomb Disposa	al and Explosives Control				
FIELD	SUBFIELD				
8 - Law, Military Sci	ence and Security	Safety in Society			
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL CREDITS			
Undefined	Regular	Level 5	9		

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117481	Identify, explain and apply basic electronics	Level 5	9	Will occur as soon as
	relevant to the bomb disposal field		_	257283 is registered

SPECIFIC OUTCOME 1

Describe electronic systems.

SPECIFIC OUTCOME 2

Explain the functions of electronic systems.

SPECIFIC OUTCOME 3

Compile a drawing of an electronic system.

SPECIFIC OUTCOME 4

Set up electronic systems.

	ID	QUALIFICATION TITLE	LEVEL
Core	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Demonstrate the use of initiating systems

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE		
257284	Demonstrate the use of initiat	ting systems		
ORIGINATOR		PROVIDER		
SGB Bomb Disposa	al and Explosives Control			
FIELD	SUBFIELD			
8 - Law, Military Sci	ence and Security	Safety in Society		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS	
Undefined	Regular	Level 5	8	

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Describe initiating systems.

SPECIFIC OUTCOME 2

Explain the functions of initiating systems.

SPECIFIC OUTCOME 3

Compile a drawing of an initiating system.

SPECIFIC OUTCOME 4

Set up initiating systems.

	ID	QUALIFICATION TITLE	LEVEL
Core	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Demonstrate the use of demolition techniques

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
257735	Demonstrate the use of demo	Demonstrate the use of demolition techniques			
ORIGINATOR		PROVIDER			
SGB Bomb Disposa	al and Explosives Control				
FIELD	SUBFIELD				
8 - Law, Military Sc	ience and Security	Safety in Society	afety in Society		
ABET BAND UNIT STANDARD TYPE		NQF LEVEL	CREDITS		
Undefined	Regular	Level 5	8		

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Describe demolition techniques.

SPECIFIC OUTCOME 2

Assess the target.

SPECIFIC OUTCOME 3

Prepare the charges.

SPECIFIC OUTCOME 4

Apply demolition techniques.

	ID	QUALIFICATION TITLE	LEVEL
Core	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Secure caches

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE		
257736	Secure caches	Secure caches		
ORIGINATOR		PROVIDER		
SGB Bomb Disposal	and Explosives Control	osives Control		
FIELD		SUBFIELD		
8 - Law, Military Scie	ence and Security	Safety in Society		
ABET BAND	UNIT STANDARD TYPE	STANDARD TYPE NQF LEVEL CREDITS		
Undefined	Regular	Regular Level 5 9		

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117474	Handling and securing of weaponry caches	Level 5	9	Will occur as soon as 257736 is registered

SPECIFIC OUTCOME 1

Conduct planning.

SPECIFIC OUTCOME 2

Approach a cache.

SPECIFIC OUTCOME 3

Lift a cache.

	O QUALIF	FICATION TITLE	LEVEL
Core 6	3229 National D	Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Handle mines

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
258008	Handle mines	Handle mines			
ORIGINATOR		PROVIDER			
SGB Bomb Disposa	al and Explosives Control	nd Explosives Control			
FIELD		SUBFIELD			
8 - Law, Military Sci	ence and Security	Safety in Society			
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL CREDITS			
Undefined	Regular	Level 5	8		

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117471	Handle unconventional mine warfare incidents	Level 5	7	Will occur as soon as 258008 is registered

SPECIFIC OUTCOME 1

Survey the area.

SPECIFIC OUTCOME 2

Uncover mines and booby traps.

SPECIFIC OUTCOME 3

Explain the safe rendering of mines and booby traps.

	ID	QUALIFICATION TITLE	LEVEL
Core	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Demonstrate knowledge of explosive ordnances

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
258009	Demonstrate knowledge of ea	xplosive ordnances			
ORIGINATOR		PROVIDER			
SGB Bomb Disposa	al and Explosives Control	and Explosives Control			
FIELD		SUBFIELD			
8 - Law, Military Science and Security		Safety in Society			
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL CREDITS			
Undefined	Regular	Level 5 9			

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117472	Identify and explain explosive ordnance (EO)	Level 5	9	Will occur as soon as 258009 is registered

SPECIFIC OUTCOME 1

Describe explosive ordnances.

SPECIFIC OUTCOME 2

Describe the components of explosive ordnance.

SPECIFIC OUTCOME 3

Identify and describe markings of ordnance.

	ID	QUALIFICATION TITLE	LEVEL
Core	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Demonstrate knowledge of blasting accessories

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
258013	Demonstrate knowledge of b	lasting accessories			
ORIGINATOR		PROVIDER			
SGB Bomb Disposa	al and Explosives Control				
FIELD		SUBFIELD			
8 - Law, Military Sc	8 - Law, Military Science and Security				
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL CREDITS			
Undefined	Regular	Level 5	8		

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117467	Identify, apply and implement different blasting accessories, initiating systems and blasting techniques	Level 5	22	Will occur as soon as 258013 is registered

SPECIFIC OUTCOME 1

Describe blasting accessories.

SPECIFIC OUTCOME 2

Handle blasting accessories.

SPECIFIC OUTCOME 3

Compile a drawing of a firing train.

	ID	QUALIFICATION TITLE	LEVEL
Core	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Demonstrate an understanding of Improvised Explosive Devices

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
258014	Demonstrate an understandir	ng of Improvised Explos	sive Devices		
ORIGINATOR		PROVIDER			
SGB Bomb Disposa	al and Explosives Control				
FIELD	SUBFIELD				
8 - Law, Military Sci	- Law, Military Science and Security Safety in Society				
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL CREDITS			
Undefined	Regular	Level 5 12			

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117485	Identify and explain Improvised Explosive Devices (IED)	Level 5	18	Will occur as soon as 258014 is registered

SPECIFIC OUTCOME 1

Describe Improvised Explosive Devices.

SPECIFIC OUTCOME 2

Design an Improvised Explosive Device.

SPECIFIC OUTCOME 3

Construct an Improvised Explosive Device.

	ĪD	QUALIFICATION TITLE	LEVEL
Core	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Demonstrate an understanding of the dynamics in the field of explosives

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
258015	Demonstrate an understandir	Demonstrate an understanding of the dynamics in the field of explosives			
ORIGINATOR		PROVIDER			
SGB Bomb Dispos	al and Explosives Control				
FIELD	SUBFIELD				
8 - Law, Military Sc	ience and Security	Safety in Society			
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL CREDITS			
Undefined	Regular	Level 5	5		

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117463	Demonstrate an understanding of the history and	Level 5	3	Will occur as soon as
	the impact of explosives and explosions			258015 is registered

SPECIFIC OUTCOME 1

Demonstrate an understanding of the history of explosives.

SPECIFIC OUTCOME 2

Demonstrate an understanding of the legal framework pertaining to explosives and explosives control.

SPECIFIC OUTCOME 3

Demonstrate an understanding of explosions.

	ID	QUALIFICATION TITLE	LEVEL
Fundamental	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Conduct searching and sweeping

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
258016	Conduct searching and swee	Conduct searching and sweeping			
ORIGINATOR		PROVIDER			
SGB Bomb Disposa	l and Explosives Control	and Explosives Control			
FIELD		SUBFIELD			
8 - Law, Military Scie	ence and Security	Safety in Society			
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL CREDITS			
Undefined	Regular	Level 5	10		

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117489	Conduct searching and sweeping	Level 5	10	Will occur as soon as 258016 is registered

SPECIFIC OUTCOME 1

Apply searching and sweeping methods.

SPECIFIC OUTCOME 2

Evacuate an area or premises.

SPECIFIC OUTCOME 3

Describe the utilisation of different resources in a search and sweep.

	ID	QUALIFICATION TITLE	LEVEL
Core	63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Conduct briefing and debriefing sessions

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
258017	Conduct briefing and debriefi	Conduct briefing and debriefing sessions			
ORIGINATOR	PROVIDER				
SGB Bomb Disposal and Explosives Control					
FIELD SUBFIELD					
8 - Law, Military Sci	ence and Security	Safety in Society			
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL CREDITS			
Undefined	Regular	Level 5 3			

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117468	Conduct planning, briefing and debriefing sessions	Level 5	3	Will occur as soon as
				258017 is registered

SPECIFIC OUTCOME 1

Prepare and plan for a briefing session.

SPECIFIC OUTCOME 2

Facilitate a briefing session.

SPECIFIC OUTCOME 3

Facilitate a debriefing session.

ID	QUALIFICATION TITLE	LEVEL
Core 63229	National Diploma: Bomb Disposal	Level 5



UNIT STANDARD:

Conduct a post-blast investigation

SAQA US ID	UNIT STANDARD TITLE	UNIT STANDARD TITLE			
258018	Conduct a post-blast investig	Conduct a post-blast investigation			
ORIGINATOR		PROVIDER			
SGB Bomb Disposa	al and Explosives Control	and Explosives Control			
FIELD		SUBFIELD			
8 - Law, Military Sci	ence and Security	Safety in Society			
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL CREDITS			
Undefined	Regular	Level 5 11			

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
117482	Conduct post-blast investigations	Level 5	11	Will occur as soon as 258018 is registered

SPECIFIC OUTCOME 1

Prepare for a blast investigation.

SPECIFIC OUTCOME 2

Take control of the scene.

SPECIFIC OUTCOME 3

Conduct a safety sweep.

SPECIFIC OUTCOME 4

Investigate the scene.

SPECIFIC OUTCOME 5

Reconstruct the explosive device.

SPECIFIC OUTCOME 6

Conclude the administration process.

	ID	QUALIFICATION TITLE	LEVEL
Core	63229	National Diploma: Bomb Disposal	Level 5