DEPARTMENT OF WATER AND SANITATION

NO. 3630 **30 June 2023**

WATER ACT, 1956 (ACT 54 OF 1956)

REGULATIONS IN TERMS OF SECTION 26 READ IN CONJUNCTION WITH SECTION 12A OF THE WATER ACT, 1956 (ACT 54 OF 1956), FOR THE ERECTION, ENLARGEMENT, OPERATION AND REGISTRATION OF WATER CARE WORKS – REPEAL

I, Mr Senzo Mchunu, Minister of Water and Sanitation, hereby repeal the Regulations for the erection, enlargement, operation and registration of water care works in terms of section 26 read in conjunction with section 12A of the Water Act, 1956 (Act 54 of 1956) as promulgated on 27 December 1985 under Government Notice 2834 GNR.2834 of 27 December as amended by Government Gazette Notice 10088 GNR.224 on 7 February 1986, in its entirety.

The repeal of the Regulations concerned will come into effect on publication in the *Gazette*.

MR SENZO MCHUNU, MP
MINISTER OF WATER AND SANITATION
DATE: 28/04/23

WATER SERVICES ACT, 1997

REGULATIONS RELATING TO COMPULSORY NATIONAL STANDARDS FOR PROCESS CONTROLLER AND WATER SERVICES WORKS

The Minister of Water and Sanitation has, under section 9(1) of the Water Services Act, 1997 (Act No. 108 of 1997), made the regulations in the Schedule.

MR SENZO MCHUNU, MP
MINISTER OF WATER AND SANITATION
DATE 23/04/2023

SCHEDULE

REGULATION ARRANGEMENT OF SECTION

Acronyms

ABET	Adult Basic Education and Training
EWSETA	Energy and Water Sector Education and Training Authority established in terms of the Skills Development Act, 1998 (Act No. 97 of 1998).
GETC	means a General Education and Training Certificate for a qualification registered with the SAQA
LGSETA	Local Government Sector Education and Training Authority established in terms of the Skills Development Act, 1998 (Act No. 97 of 1998)
NTC	National Technical Certificate programmes offered by Technical Vocational Education and Training Colleges accredited by the Department of Education.
NQF	National Qualifications Framework as contemplated in National Qualifications Framework Act, 2008 (Act No. 67 of 2008)
SAQA	South African Qualifications Authority referred to in section 10 of the National Qualifications Framework Act, 2008 (Act No. 67 of 2008)

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Definitions

1. In these Regulations any word or expression to which a meaning has been assigned in the Act has that meaning and, unless the context otherwise indicates—

"Class VI Process Controller" means any natural person who is qualified and authorised to design and supervise the construction, installation, operation and sustain treatment efficacy of any water services work and who is employed by either a water services institution, water services work owner, or a company actively involved with the treatment and professional monitoring of water services works or water containing waste in some way or the other.

"Grand Parent Process Controller" is applicable to a natural person who is employed at a water services institution or by a water services work owner without formal qualification and who performed the functions of a process controller between 27 December 1985 (when the Regulations for the Erection, Enlargement, Operation and Registration of Water Care Works – Government Notice No. R. 2834 of 27 December 1985 – came into force) and 27 December 2005.

"process controller" means any natural person who has achieved the relevant competencies to effectively operate and sustain treatment efficacy of any water services work and who is employed by either a water services institution or water services work owner.

"**professional credits**" means the units of credit that reflect a necessary number of hours of participation by a person in accredited education programmes in order to keep his or her professional registration. One professional credit is deemed to be equivalent to one day (eight hours) of continuing education.

"qualification" means the formal recognition of an achievement for the required number and range of credits (and such other requirements at specific levels of the NQF as may be determined by the relevant bodies registered for such purpose by the South African Qualifications Authority).

"registered professional" means a Professional Engineer or a Professional Engineering Technologist in terms of the Engineering Professions Act, 2000 (Act 46 of 2000) with proven years of experience in the water or waste water operations; or a Natural Scientist in terms of the Natural Scientific Professions Act, 2003 (Act 27 of 2003) with proven years of experience in the water or waste water operations; or a professionally registered process controller with a professional body in terms of the National Qualification Framework Act, 2008 (Act No 67 of 2008).

"the Act" means the Water Services Act, 1997 (Act No. 108 of 1997).

"the Department" means the Department of Water and Sanitation.

"unit standard credits" means the value or weight assigned by the SAQA to ten notional hours of practical and theoretical learning.

Standards for classification of water services works

2. (1) All water services works must be classified into an appropriate class of water services work as contemplated in Schedules 1 and 2, upon which a classification certificate shall be issued.

(2) All water services works classified in terms of the Regulations for the Erection, Enlargement, Operation and Registration of Water Care Works must be re-classified.

(3) Every class of water services work must employ—

(a) a supervisory process controller;

(b) a process controller; and

(c) operations and maintenance support services (of the class or description contemplated in Schedule 4).

(4) Where a water services institution or water services work start/s operation after the entry into force of these Regulations, the institution or owner of the water services work must apply to the Department for a classification of the water services work (as required by sub-regulation (1) before that work is commissioned – upon which a classification certificate shall be issued.

(5) (a) If a component of a water services work is altered or replaced in a manner that changes the capacity of such work or component, the water services institution or owner of the water services work must, within 60 calendar days after the date of the alteration or replacement, apply to the Department for a reclassification of the water services work in accordance with Schedule 1 or 2 – upon which a classification certificate shall be issued.

(b) The institution or owner must, within 120 calendar days after commissioning of the alteration or replacement, comply with Schedule 4 of these Regulations.

(6) The owner of a water services work must display, in a prominent place on that work, a copy of classification certificate contemplated in sub-regulation (1).

(7) (a) The owner of a new or altered water services work must certify that the water services work has been designed and constructed in strict compliance with minimum requirements and specifications as specified by relevant construction and design standard setting bodies.

(b) The certification contemplated in paragraph (a) must be done by the—

(i) owner of the water treatment works or wastewater treatment works;
(ii) engineer responsible for treatment design process;
(iii) engineer responsible for structural designs;
(iv) engineer responsible for the design of mechanical components; and
(v) engineer responsible for electrical and electronic components.

(c) All registered water services works must at all times, be in possession of a—
(i) site specific operation and maintenance manual; and
(ii) copy of a Water Use Authorisation.

Standards for registration of a process controller

3.(1) All process controllers at a water services work – whether in full-time or temporary employment – must be registered in a class as contemplated in Schedule 3.

(2) To be registered in terms of sub-regulation (1), a person must have—
(a) the necessary qualifications from an accredited institution of higher learning or an institution accredited by EWSETA/ LGSETA;
(b) the appropriate years of experience per class of process controller, as contemplated in the applicable column of the Table in Schedule 3.

(3) An applicant for registration must provide the necessary signed employment records as proof of years of experience.

(4) A learner process controller may only be registered as a process controller when he or she has complied with the requirements as contemplated in Schedule 3.

(5) The owner of a water services work must display, in a prominent place on that work, a copy of the registration certificate for all process controllers responsible to operate such work.

(6) Experience obtained at a wastewater treatment works will only be applied towards registration as a process controller at a wastewater treatment works

(7) Experience obtained at a drinking water treatment works will only be applied towards registration as a process controller at a drinking water treatment works

(8) A process controller who left their employment, their registration renewal will only be done if they obtain 6 months operating or related experience between 5 years renewal period.

(9) A process controller must renew their registration every five years.

Standards for training of a process controller

4. (1) For a process controller registration certificate to be renewed, a process controller must—

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(a) undertake appropriate training in the functioning and operation of water services works, and

(b) meet the following minimum annual training requirements, in a water or wastewater treatment related qualification:

Class of Process Controller	Unit Standard Credits	
Learner	30	Continued Education
Class I	30	
Class II	30	
Class III	30	
Class IV	30	
Class V	10[1]	Continued Education/Refresher Training
Class VI	10*	

Table 1: Minimum Annual training requirements.

1 and * are Professional Credits: From Class V, process controller must register for professional process controller.

(2) The Unit Standards for training that process controller registered as Class I to IV must be a combination of fundamental, core and electives from a registered water learnership at the appropriate NQF level.

(3) A process controller contemplated in sub-regulation (2) must be able to obtain a relevant water qualification with a minimum of 136 credits or credits as prescribed by SAQA and accredited by EWSETA,

Standards for process controller employed prior to commencement of regulations

5. (1) Subject to sub-regulations (2) and (3), a person who is employed at a water services institution or by a water services work owner and who performed the functions of a process controller between 27 December 1985 (when the Regulations for the Erection, Enlargement, Operation and Registration of Water Care Works – Government Notice No. R. 2834 of 27 December 1985 –

came into force) and 27 December 2005 is eligible for grand parenting registration as contemplated in Schedule 3.

(2) A process controller contemplated in sub-regulation (1) must successfully demonstrate competence for registration by being subjected to a competency assessment that must be carried out by a registered professional appointed by a water services institution.

(3) The water service institution must submit competency assessment reports to the Department for registration of a person contemplated in sub-regulation (1).

(4) A person contemplated in sub-regulation (1) is registered for the sites or water services works where the applicant was assessed – and is not applicable to any other water services works.

Compliance and enforcement of these regulation

6. Water Services Institution must be compliant to these regulation within two years of its promulgation.

Short title

7. These regulations are called the Regulations relating to Compulsory National Standards for Process Controller and Water Services Works.

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SCHEDULE 1

CLASSIFICATION OF WATER SERVICES WORKS USED FOR ABSTRACTION, TREATMENT AND STORAGE OF WATER FOR HUMAN CONSUMPTION AND DISPOSAL OF ASSOCIATED WASTE PRODUCTS

Rating

Class of works & Range of points	E <30	D 30 – 49	C 50 – 69	B 70 – 90	A >90

Points are to be awarded at the discretion of the Director-General in accordance with the following criteria:

Technology	Unit Process	Control Elements	Maximum
Population supplied		Up to 5 000	1
		5 001 to 50 000	2
		50 001 to 250 000	3
		> 250 000	4
Infrastructure	**Design Capacity in kilolitres per day (kℓ/d)**	0 to 500	2
		501 to 2 500	4
		2 501 to 7 500	6
		7 501 to 25 000	8
		>25 000	10
	Versus peak day	Design more than peak day use	0
		Design = peak day use	1
		Design < peak day use	3
	Final water storage capacity	>60 hours during peak	0
		36-60 hours during peak	1
		<36 hours during peak	2
	Installed power (kilowatts of installed power to operate)	0-5 kW	1
		6 – 100 kW	3
		101 – 1000 kW	5
		>1000 kW	10
Operating Procedures	**Raw water flow rate**	No variation	0
		Little variation (<5%)	1
		Controlled variation with automatic adjustments	2
		Uncontrolled variation with automatic adjustments	3
		Controlled variation with manual adjustments	4
		Uncontrolled variation with manual adjustments	5
	Raw water quality	No adjustments needed in operating procedures	0
		Seasonal adjustments needed in procedures	1

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Technology	Unit Process	Control Elements	Maximum
		Monthly adjustments needed in procedures	2
		Weekly adjustments needed in procedures	3
		Daily adjustments needed in procedures	4
		Hourly adjustments needed in procedures	5
	Wastewater effluent re-use	Direct sewer treatment for drinking supply	10
	Chemical dosing	No chemicals added	0
		Disinfection chemical	2
		+1 flocculation chemical without pH control	4
		+2 flocculation chemicals without pH control	6
		+1 flocculation chemical with pH control	8
		+2 flocculation chemicals with pH control	10
Operating Processes	**Desludging**	Automatic desludging	1
		Manual desludging	2
		Automatic fixed schedule of desludging	3
		Manual fixed schedule of desludging	4
		Optimised desludging	5
	Filter Backwash	Automatic controlled by timer	1
		Automatic controlled by pressure	2
		Manual with fixed time schedule	3
		Manual with fixed pressure schedule	4
		Optimised filter backwash	5
	Settling Process	Uncontrolled process	2
		Controlled process (sludge blanket)	5
		Dissolved air flotation	5
	Stabilisation	pH correction with automatic dosing	1
		pH correction with manual dosing	2
		pH correction according to Langelier/ Rayzner index	3
		pH correction according to Stasoft programme/similar	4
		Complete stabilisation with CO_2	5
	Filtration	Slow Filters	1
		Rapid Filters	5
		Pressure Filters	5
	Disinfection	Uncontrolled with chlorine tablets	1
		Dosing with liquids or powder	2
		Dosing with chlorine gas, ultraviolet or ozone	3
		Combination of chlorine gas, ultraviolet and/or ozone	5
		Chloramination	5
Control Processes	**Recirculation/Backwash recovery**	Without any adjustments in procedure	1
		With automatic adjustments in procedure	2

Technology	Unit Process	Control Elements	Maximum
		With separate settling tanks	3
		Controlled recirculation with adjustments	4
		Uncontrolled recirculation with adjustments	5
	Sludge handling	Sludge lagoons	3
	Water Losses	On works only	2
		Distribution	4
	Water Management	Different reservoirs	2
		Different pressure zones	4
	Pumping	Gravitation only	2
		Gravitation and pumping	4
		Raw or final pumping	4
		Raw, Final and other pumping	6
	Level	Indicators	2
		Telemetric	4
		SCADA	5
	Maintenance	None by process controller	0
		Basic maintenance by process controller	1
		Specialised maintenance by process controller	2
	Lab services Analytical services	Reading with instrumentation by process controller	2
		Full lab service on site but not done by process controller, although still a management function	3
		Chemical analysis done by process controller	4
		Jar tests to maintain optimum dosing by process controller (more than 2x daily)	5
	Administration	Calculate daily flow and stock taking	2
		Calculate dosing and generate reports	4
		Process control systems in place (SCADA/HMI/Similar)	5
Special Processes	**Demineralisation**	Mechanical – Air	2
		Chemical*	1-5*
		Fluoridation	5
		Reverse Osmosis	5
		Activated carbon	5
		Ion Exchange	5
		Ultra-filtration	5

* Points scored according to combination of chemicals– needs to be motivated and 1 additional point is then added per motivations

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SCHEDULE 1A

CLASSIFICATION OF A BOREHOLE AS A WATERWORK USED FOR ABSTRACTION AND TREATMENT OF WATER FOR HUMAN CONSUMPTION AND HOUSEHOLD USE

Rating

Class of works & Range of points	**E <30**	**D 30 - 49**	**C 50 – 69**	**B 70 – 90**	**A >90**

Points are to be awarded at the discretion of the Director-General in accordance with the following criteria:

Technology	Unit Process	Control Elements	Maximum
Population supplied		Up to 5 000	1
		5 001 to 50 000	2
		50 001 to 250 000	3
		> 250 000	4
Infrastructure	**Design Capacity in kilolitres per day (kℓ/d)**	0 to 500	2
		501 to 2 500	4
		2 501 to 7 500	6
		7 501 to 25 000	8
		>25 000	10
	Versus peak day	Design more than peak day use	0
		Design = peak day use	1
		Design < peak day use	3
	Final water storage capacity	>60 hours during peak	0
		36-60 hours during peak	1
		<36 hours during peak	2
	Installed power (kilowatts of installed power to operate)	0-5 kW	1
		6 – 100 kW	3
		101 – 1000 kW	5
		>1000 kW	10
Operating Procedures	**Raw water flow rate**	No variation	0
		Little variation (<5%)	1
		Controlled variation with automatic adjustments	2
		Uncontrolled variation with automatic adjustments	3
		Controlled variation with manual adjustments	4
		Uncontrolled variation with manual adjustments	5
	Raw water quality	No adjustments needed in operating procedures	0
		Seasonal adjustments needed in procedures	1
Operating Processes	**Disinfection**	Uncontrolled with chlorine tablets	1
		Dosing with liquids or powder	2
		Dosing with chlorine gas, ultraviolet or ozone	3
		Combination of chlorine gas, ultraviolet and/or ozone	5

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Technology	Unit Process	Control Elements	Maximum
Control Processes	**Water Losses**	On works only	2
	Water Management	Different reservoirs	2
		Different pressure zones	4
	Pumping	Gravitation only	2
		Gravitation and pumping	4
		Raw or final pumping	4
		Raw, final and other pumping	6
	Level	Indicators	2
		Telemetric	4
	Maintenance	None by process controller	0
		Basic maintenance by process controller	1
		Specialised maintenance	2
	Lab services	Reading with instrumentation by process controller	2
		Full lab service on site but not done by process controller, although still a management function	3
		Chemical analyses done by process controller	4
	Administration	Record readings	1
		Calculate daily flow and stock taking	2
		Calculate dosing and generate reports	4
		Process control systems in place (SCADA/HMI/Similar)	5

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SCHEDULE 2

CLASSIFICATION OF A WATER SERVICES WORKS USED FOR THE TREATMENT OF WASTEWATER AND THE DISPOSAL OR RE-USE OF THE TREATED WASTEWATER AND ASSOCIATED WASTE PRODUCTS

Rating

Class of works & Range of points	E <30	D 30 – 49	C 50 - 69	B 70 - 90	A >90

Points to be awarded at the discretion of the Director-General in accordance with the following criteria:

Technology	Unit Process	Control Elements	Maximum
Infrastructure	**Design Capacity in kilolitres per day (kℓ/d)**	Actual volume: _____Kℓ/d	
		0 to 500	1
		501 to 5 000	2
		5 001 to 10 000	4
		10 001 to 20 000	5
		20 001 to 50 000	6
		50 001 to 250 000	8
		>250 000	10
	Installed power (kilowatts of installed power to operate)	0 – 5 kW	1
		6 – 100 kW	3
		101 –1000 kW	5
		>1000 kW	10
Quality of intake water		Domestic	1-3
		Conservancy/Night soil	1-5**
		Industrial effluent	1-5**
		Internal recycle eg filtrate/centrate, supernatant etc	2
		Leachate	1-3**
Process parameters	**Primary Treatment**	Manually raked screens	1
		Automatic screens	2
		Hand/mechanical grit removal	1
		Automatic grit removal	2
		Flow balancing	2
		Primary sedimentation	2
		Sludge fermentation	4
	Secondary Treatment	Oxidation ponds	2
		Biodiscs	3
		Biofilters (Biof)	4
		Activated sludge: full nitrification	6
		Activated sludge: partial denitrification	8
		Activated sludge: Biological Excess phosphate removal	10
		Activated Sludge: Aerobic Granular	10
		Biomass (NEREDA)	4
		Chemical Addition	2
		Secondary Sedimentation/Humus tank	2
	Tertiary Treatment	Maturation ponds	1
		Reedbeds	1

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Technology	Unit Process	Control Elements	Maximum
		Sand filters	2
		Disinfection (eg. Chlorination, ammonium bromide, ozone and UV 1-2)*	1-3*
		Chemical De-chlorination	2
		Desalination/Membrane filters/reverse osmosis	5
		Treated water containing waste re-use for industrial purposes	2
	Sludge Treatment	Anaerobic Digestion - <30 days retention	4
		Anaerobic Digestion - >30 days retention	2
		Mechanical or physical/chemical sludge treatment including thickening, stabilisation and/or dewatering	7
		Aerobic digestion	2
		Sludge drying beds/lagoons	1
		Thermal sludge treatment	6
		Sludge heating	3
	Additional Factors	Gas engines, incineration, boilers	1-3*
		On-site steam generation	3
		Partial to full plant automation	1-5*
		Odour control	1-3*
		Standby power	1-3*
		24 hour telemetry monitoring	3
Control Processes	**Maintenance**	None by process controller	0
		Basic maintenance by process controller	1
		Specialised maintenance	4
	Lab services	Reading with instrumentation by process controller	2
		Full lab service on site but not done by process controller, although still a management function	3
		Chemical analyses done by process controller	4
	Administration	Record Readings	1
		Calculate daily flows and stock taking	2
		Calculate dosing and generate reports	4
		Process control systems in place (SCADA/HMI/Similar)	5
	Trade Effluent by-laws	Trade effluent by-laws exist and are implemented	0
		No trade effluent by-laws	5
	Pumping	Gravitation only	2
		Gravitation and pumping	4
		Final Pumping	4
Sensitivity of water resource		Low – e.g. oxidation pond with irrigation, evaporation pond, marine discharge	2

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Technology	Unit Process	Control Elements	Maximum
into which treated water containing waste is discharged		Medium – e.g. all discharges to any river or stream except in specially identified areas	4
		High – e.g. Special standard or where a receiving water quality standard is prescribed and estuaries	6
Water Reclamation and reuse of treated wastewater	**Reclamation/Reuse Type**	**Applications**	
	Agricultural Irrigation	Crops irrigated	6
	Landscape irrigation	parks	3
		golf courses	3
		freeways	3
		office and industrial developments	3
		residential	3
	Industrial Activities	Cooling and process needs	6
		Power Generation	6
		Gas Production	6
	Groundwater Recharge	spreading basins	10
		direct injection to groundwater aquifers	10
	Other non-drinking uses	fire protection	4
		air condition	4
		toilet flushing	4
		construction water	4
		sanitary sewer	4
	Wastewater effluent reuse (potable use)	Direct sewer treatment for potable use	10

*Points scored according to complexity of the process need to be motivated for and 1 additional point is then added per motivation.
** Points scored according to % of night soil, industrial effluent or leachate being discharged to the water services works making the process more complex. This motivation must include the Chemical Oxygen Demand concentrations.
Design capacity as Average Dry Weather Flow (ADWF) – the average of the total volume of wastewater received daily at a wastewater services works.

SCHEDULE 3

PROCESS CONTROLLER REGISTRATION

This Schedule must be read in conjunction with the qualifications registered with the South African Qualifications Authority on the National Qualifications Framework. The qualifications include Water and Wastewater Process operations and control and industrial water treatment support and control operations.

EDUCATIONAL REQUIREMENTS	Years appropriate experience per Class of Process Controller							
	Grand Parenting	Learner	I	II	III	IV	V	VI
1. None	**>10**							
1. * Skills programme equivalent to a value of at least 30 Credits of Core and/or Elective Unit Standards taken from the appropriate NQF 2 Qualification **plus** St 1/Grade 3 **or** the ABET equivalent			2					
1. St 6/ Grade 8 **plus** **Maintenance Workers Certificate; **or** 2. St 6/ Grade 8 **plus** **Treatment Training Certificate; **or** 3. NQF 1 GETC: Water Services		0	4	-	-	-	-	-
1. St 7/ Grade 9 **plus** **Maintenance Workers Certificate; **or** 2. St 7/ Grade 9 **plus** **Treatment Training Certificate; **or** 3. NQF 1 GETC: Water Services **plus** the Core Unit Standards from the Appropriate NQF 2 Qualification equivalent to a value of at least 30 Credits		0	3	-	-	-	-	-
1. St 8/ Grade 10 (or NTC 1) **plus** **Maintenance Workers Certificate; **or** 2. St 8/ Grade 10 (or NTC 1) **plus** **Treatment Training Certificate; **or** 3. St 8/ Grade 10 (or NTC 1) **plus** Water and Wastewater Treatment practice N1; **or**		0	2	5	-	-	-	-

EDUCATIONAL REQUIREMENTS	Years appropriate experience per Class of Process Controller							
	Grand Parenting	Learner	I	II	III	IV	V	VI
4. St 8/ Grade 10 (or NTC 1) **plus** the Core Unit Standards from Appropriate NQF 2 Qualification equivalent to a value of at least 30 credits; **or** 5. Appropriate NQF 2 qualification								
1. NTC 1 in Water and Wastewater Treatment practice		0	1.5	4	-	-	-	-
1. Std. 8/ Grade 10 (or NTC I) **plus** ***Operators certificate **or** 2. St 8/ Grade 10 (or NTC 1) **plus** the Core Unit Standards from the Appropriate NQF 3 qualification equivalent to a value of at least 30 credits.		0	1	3	9	-	-	-
1. St 9/ Grade 11 (or NTC II) **plus** ***Operators certificate **or** 2. Std 9/Grade 11 (NTC II) **plus** Water and Wastewater Treatment Practice N2 **or** 3. St 9/ Grade 11 (or NTC II) **plus** the Core Unit Standards from the Appropriate NQF 3 qualification equivalent to a value of at least 30 credits; **or** 4. NTC II in Water and Wastewater Treatment practice; **or** 5. Appropriate NQF 3 qualification.		0	0.5	2	7	15	-	-
1. Matric/ Grade 12 (or NTC III) (Mathematics + Science)		0	4	-	-	-	-	-
1. Matric/ Grade 12 (or NTC III) **plus** **Maintenance Workers Training Certificate; **or** 2. Matric/ Grade 12 (or NTC III) **plus** **Treatment Training Certificate		0	1	2	-	-	-	-
1. Matric/ Grade 12 (or NTC III) **plus** ***Operators Certificate; **or** 2. Matric/ Grade 12 (or NTC III) **plus** Water Treatment practice N3; **or**			0	0.5	3	8	15	-

EDUCATIONAL REQUIREMENTS	Years appropriate experience per Class of Process Controller							
	Grand Parenting	Learner	I	II	III	IV	V	VI
3. Matric/ Grade 12 (or NTC III) **plus** Wastewater Treatment practice N3; **or** 4. Matric/ Grade 12 (or NTC III) **plus** the Core Unit Standards from the Appropriate NQF 4 Qualification equivalent to a value of at least 30 credits; **or** 5. NTC III in Water Treatment practice; **or** 6. NTC III in Wastewater Treatment practice; **or** 7. Appropriate NQF 4 qualification								
1. Appropriate NQF 5 Qualification				0	2	5	10	-
1. National Diploma **or** National Technical Diploma **or** NTC VI **or** 2. Appropriate NQF 6 qualification					0	2	6	-
1. B Tech (Advanced Diploma) **or** 3-year BSc (both in appropriate field); **or** 2. Appropriate NQF 7						0	4	15
1. 4 years BSc (in appropriate field) or NQF 8						0	3	10
1. Professional process controller							0	5

* *This will apply only to those who have been working at a registered water services works for longer than 10 years with no classification or a Class 0 classification under Government Notice No. R. 2834 of 27 December 1985, and who have not achieved the relevant unit standards by recognised prior learning assessment. The non-prescriptive criteria allow for the older process controller who could not be classified under the old regulation to select Unit Standards relevant to their experience/training on which they can be assessed. A motivation for being registered in this category must accompany the application.*

** *Maintenance Workers / Treatment Training Certificate: Training must be accredited and/or hold CPD credits and have duration of not less than 5 days.*

*** *Operators Certificate: is a training certificate issued by the then Department of Water Affairs. However, this certificate has been discontinued it is included in the regulations for recognition purposes.*

NOTES ON SCHEDULE 3

1. APPROPRIATE NQF QUALIFICATIONS

NQF qualifications are revised every three years and updated if necessary. Certificates issued for the following qualifications and any previous or updated versions thereof will be recognized, as indicated in Schedule 3 above.

1.1 NQF LEVEL 1

GETC: Water Services

1.2 NQF LEVEL 2

1.2.1 National Certificate: Water and Wastewater Process Operations

1.2.2 National Certificate: Industrial Water Treatment Support Operations

1.3 NQF LEVEL 3

1.3.1 National Certificate: Water and Wastewater Process Control

1.3.2 National Certificate: Industrial Water Treatment Plant Operation

1.4 NQF LEVEL 4

1.4.1 Further Education and Training Certificate: Water and Wastewater Process Supervision

1.4.2 National Certificate in Industrial Water Treatment Control Operations

1.5 NQF LEVEL 5

1.5.1 A generic qualification in management that includes as core a selection of registered water related unit standards at the NQF 5 level

1.6 NQF LEVEL 6

Whole qualifications as provided by tertiary education institutions that is appropriate to water and wastewater treatment.

SCHEDULE 4

MINIMUM CLASS OF PROCESS CONTROLLER REQUIRED PER SHIFT, AND SUPERVISION, OPERATIONS AND MAINTENANCE SUPPORT SERVICES REQUIREMENTS AT A WATER SERVICES WORKS

WORKS CLASS	CLASS OF PROCESS CONTROLLER PER SHIFT	CLASS OF PROCESS CONTROLLER FOR SUPERVISION*	OPERATIONS AND MAINTENANCE SUPPORT SERVICES REQUIREMENTS*
E	Class I	Class V*	THESE PERSONNEL MUST BE AVAILABLE AT ALL TIMES BUT MAY BE IN-HOUSE OR OUTSOURCED - electrician -civil - mechanical - instrumentation technician
D	Class II	Class V*	
C	Class III	Class V*	
B	Class IV	Class V	
A	Class IV	Class V	

NB. Fluoridation – for any class works, minimum process controller classification should be class IV

NOTES FOR SCHEDULES IV

*does not have to be at the water services works at all times but must be available when required. If the Water Services Institution or owner of a water services works has no person of this class employed at that water services works, a contractor / consultant with the required qualifications as prescribed in Schedule III in respect of that particular class of persons shall be appointed to visit the water services works weekly.

NB. The number of process controllers required is subject to shift patterns used at water services works, depending on the number of shifts worked at a particular works, a standby process controller must be available to cater for shift change overs and emergency replacement of staff or any other reasons.

Disclaimer: This registration of a water treatment works, or wastewater treatment works does not replace the need to apply for a water use authorization.