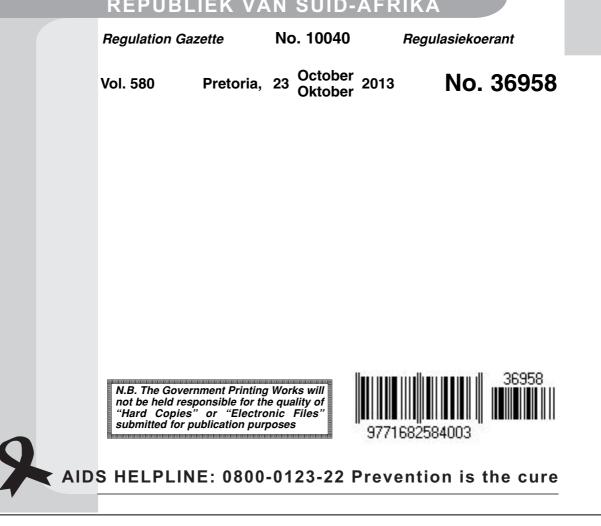


Government Gazette Staatskoerant REPUBLIC OF SOUTH AFRICA



305279—**A**

IMPORTANT NOTICE

The Government Printing Works will not be held responsible for faxed documents not received due to errors on the fax machine or faxes received which are unclear or incomplete. Please be advised that an "OK" slip, received from a fax machine, will not be accepted as proof that documents were received by the GPW for printing. If documents are faxed to the GPW it will be the sender's responsibility to phone and confirm that the documents were received in good order.

Furthermore the Government Printing Works will also not be held responsible for cancellations and amendments which have not been done on original documents received from clients.

No.

Page Gazette No. No.

GOVERNMENT NOTICE

Water Affairs, Department of

Government Notice

GOVERNMENT NOTICE

DEPARTMENT OF WATER AFFAIRS

23 October 2013

WATER SERVICES ACT, 1997

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

I, Bomo Edna Molewa, Minister of Water and Environmental Affairs, in terms of section 71(1) of the Water Services Act, 1997 (Act No. 108 of 1997), hereby publish for public comment the draft Regulations relating to Compulsory National Standards for Process Controllers and Water Services Works to be made under section 9(1) of that Act, in the Schedule.

Interested parties are invited to submit, within 60 days from the date of publication of this notice, written comments on the proposed regulations to the Director-General, Department of Water Affairs, Private Bag X313, Pretoria 0001, Fax (012) 3366679; email: NaikerR@dwa.gov.za or MupariwaM@dwa.gov.za (for the attention of Ms NM Mupariwa).

BOMO EDNA MOLEWA, MP MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

SCHEDULE

Definitions

R. 813

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—

"**National Qualifications Framework**" (NQF) means a flexible and integrated education and training system, which promotes a process of life-long learning through planned career paths;

"process controller" means any natural person who has achieved the relevant competencies to effectively operate a unit process at a water services work or who is qualified and authorised to design and supervise the construction, installation, operation and maintenance 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;

"**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 the achievement of the required number and range of credits and such other requirements at specific levels of the National Qualifications Framework as may be determined by the relevant bodies registered for such purpose by the South African Qualifications Authority;

"**South African Qualifications Authority**" means the South African Qualifications Authority referred to in section 10 of the National Qualifications 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 affairs;

"**unit standard credits**" means the value or weight assigned by the South African Qualifications Authority to ten notional hours of practical and theoretical learning;

"General Education and Training Certificate" (GETC) means the culmination of learning of the General Education and Training band for schools and for Adult Basic Education, and a foundation for further education and training and /or career path and can ease access to Further Education and Training band;

"Adult Basic Education and Training" (ABET) means the general conceptual foundation towards lifelong learning and development, comprising of knowledge, skills and attitudes required for social, economic and political participation and transformation applicable to a range of contexts;

"National Technical Certificate" (NTC) means

"Higher Education and Training Framework" (HEQF) means the policy on higher education determined and published by the minster

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. Including existing works classified under Regulation 2834 of 27 December 1985.

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

(a) supervisory process controllers;

(b) process controllers; and

(c) operations and maintenance support services,

of the class or description contemplated in Schedule 4.

(3) A water services institution or owner of a water services work that is to be put into operation after the date of commencement of these regulations must apply to the Department, for a classification of the water services work, as required by subregulation (1), before it is commissioned, upon which a classification certificate shall be issued.

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

(5) The owner of a water services work must display in a prominent place at such work a classification certificate contemplated in subregulation (1).

Application for registration can be done on the Blue Drop and Green Drop systems.

Disclaimer: this registration does not replace the need to apply for a water use authorization.

Standards for classification of process controllers

3. (1) All process controllers, whether in full-time employment or not in full-time employment, at a water services work must be registered as a learner process controller or as process controller in a class as contemplated in Schedule 3.

(2) In order to be registered as a process controller in a class as contemplated in Schedule 3, a person must obtain the necessary—

(a) qualifications and training; and

(b) years of experience,

as contemplated in Schedule 3.

(3) All persons desiring to become process controllers must obtain a learner process controller certificate.

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

Standards for training of process controllers

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

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

(a) meet the following minimum annual training requirements:

1 Professional Credits: From Class V, process controllers must register for professional process controller registration.

; and

(b) obtain at least six months operating or related experience over the five years between registration renewals.

(2) Every process controller employed at a water services work must complete the required hours of training every year, over the five years between registration renewals.

(3) process controllers registered as Class I - Class IV, the Unit Standards for training may be provided in any combination of fundamental, core and electives from a registered water learnership at the appropriate NQF level such that any one learner will be able to obtain a full water qualification at a progressive level in a five year cycle.

Standards for process controllers employed prior to commencement of regulations

5. (1) Process controllers who have the experience requirements contemplated in Schedule 3, but do not have the necessary educational requirements, may be registered to work at the water services work where he or she is employed for a period of five years.

(2) A process controller contemplated in subregulation (1) must in accordance with subregulation (3) successfully demonstrate that he or she is competent to receive a registration certificate and must have the registration certificate renewed on the expiry of the five year period.

(3) For the purposes of subregulation (2), demonstration of competency entails that a process controller be subjected to a competency assessment that must be carried out by a registered professional upon request in writing to the Department of Water Affairs.

Repeal of regulations

6. The Regulations for the Erection, Enlargement, Operation and Registration of Water Care Works published under Government Notice No. R. 2834 of 27 December 1985 are hereby repealed.

Short title

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

SCHEDULE 1

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

Rating

Class of works	E	D	С	В	A
Range of	<30	30 – 49	50 - 69	70 – 90	>90
points					

Points 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	0 to 500	2
	kilolitres per day (kℓ/d)	501 to 2 500.	4
	kilonarco per dag (kera)	2 501 to 7 500	6
		7 501 to 25 000	8
		>25 000.	10
			10
		Actual volume:k-ℓ/d	
	Manager and the	Design more than neek devices	0
	Versus peak day	Design more than peak day use	0
		Design = peak day use	1
		Design < peak day use	3
			<u>^</u>
	Final water storage	>60 hours during peak	0
	capacity	36-60 hours during peak	1
		<36 hours during peak	2
	installed power	0-5 kW	1
	(kilowatts of installed	5 – 100 kW	3
	power to operate)	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
		Monthly adjustments needed in procedures	2
		Weekly adjustments needed in procedures	3
		Daily adjustments needed in procedures	4
	-	Hourly adjustments needed in procedures	5
			-
	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
L		· 2 nocoulation chemicals with pricontrol	10

	Destudat	Automatic dealudate ::	
Operating Processes	Desludging	Automatic desludging	1 2
		Manual desludging	2
		Manual fixed schedule of desludging	3
		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
	Stabilisation	all connection with externatio design	1
	Stabilisation	pH correction with automatic dosing pH correction with manual dosing	2
		pH correction according to Langelier/Rayzner	2
		index	3
		pH correction according to Stasoft programme	4
		Complete stabilisation with CO ₂	5
		-	
	Disinfection	Uncontrolled with tablets	1
		Dosing with liquids or powder	2
		Dosing with chlorine gas or ozone	3
		Optimum chlorine gas or ozone dosing	4
	1	Combination chlorine and ozone	5
	Recirculation/Backwash	Mithout any adjustments in presedure	1
	recovery	Without any adjustments in procedure With automatic adjustments in procedure	2
	lecovery	With separate settling tanks	3
		Controlled recirculation with adjustments	4
		Uncontrolled recirculation with adjustments	5
· · · ·			
	Sludge handling	Sludge lagoons	3
		On works only	
Control Processes	Water Losses	On works only	2
	Water Management	Different recenucire	2
	Water Management	Different reservoirs Different pressure zones	2 4
		Different pressure zones	4
	Pumping	Gravitation only	2
	·	Gravitation and pumping	4
		Raw or final pumping	4
		Raw, Final and other pumping	6
			6
	Level	Indicators	2
	Level		-
		Indicators Telemetric	2 4
	Level Maintenance	Indicators Telemetric None by process controllers	2 4 0
		Indicators Telemetric None by process controllers Basic maintenance by process controllers	2 4 0 1
		Indicators Telemetric None by process controllers	2 4 0
	Maintenance	Indicators Telemetric None by process controllers Basic maintenance by process controllers Specialised maintenance by process controllers.	2 4 0 1 2
		Indicators Telemetric None by process controllers Basic maintenance by process controllers Specialised maintenance by process controllers. Reading with instrumentation by process controllers.	2 4 0 1
	Maintenance	Indicators Telemetric None by process controllers Basic maintenance by process controllers Specialised maintenance by process controllers.	2 4 0 1 2
	Maintenance	Indicators Telemetric Basic maintenance by process controllers Specialised maintenance by process controllers. Reading with instrumentation by process controllers. Full lab service on site but not done by process controllers, although still a management function. Chemical analyses done by process controllers.	2 4 0 1 2 2
	Maintenance	Indicators Telemetric Basic maintenance by process controllers Specialised maintenance by process controllers. Reading with instrumentation by process controllers. Full lab service on site but not done by process controllers, although still a management function. Chemical analyses done by process controllers. Jar tests to maintain optimum dosing by process	2 4 0 1 2 2 3
	Maintenance	Indicators Telemetric Basic maintenance by process controllers Specialised maintenance by process controllers. Reading with instrumentation by process controllers. Full lab service on site but not done by process controllers, although still a management function. Chemical analyses done by process controllers.	2 4 0 1 2 2 3 4
	Maintenance	Indicators Telemetric Basic maintenance by process controllers Specialised maintenance by process controllers. Reading with instrumentation by process controllers. Full lab service on site but not done by process controllers, although still a management function. Chemical analyses done by process controllers. Jar tests to maintain optimum dosing by process controllers (more than 2x daily)	2 4 0 1 2 2 3
	Maintenance	Indicators Telemetric Basic maintenance by process controllers Specialised maintenance by process controllers. Reading with instrumentation by process controllers. Full lab service on site but not done by process controllers, although still a management function. Chemical analyses done by process controllers. Jar tests to maintain optimum dosing by process controllers (more than 2x daily) Record readings	2 4 0 1 2 2 3 4
	Maintenance Lab services	Indicators Telemetric Basic maintenance by process controllers Specialised maintenance by process controllers. Reading with instrumentation by process controllers. Full lab service on site but not done by process controllers, although still a management function. Chemical analyses done by process controllers. Jar tests to maintain optimum dosing by process controllers (more than 2x daily)	2 4 0 1 2 2 3 4 5
	Maintenance	Indicators Telemetric Basic maintenance by process controllers Specialised maintenance by process controllers. Reading with instrumentation by process controllers. Full lab service on site but not done by process controllers, although still a management function. Chemical analyses done by process controllers. Jar tests to maintain optimum dosing by process controllers (more than 2x daily) Record readings Calculate daily flow and stock taking Calculate dosing and generate reports	2 4 0 1 2 2 3 4 5
	Maintenance Lab services	Indicators Telemetric Basic maintenance by process controllers Specialised maintenance by process controllers. Reading with instrumentation by process controllers. Full lab service on site but not done by process controllers, although still a management function. Chemical analyses done by process controllers. Jar tests to maintain optimum dosing by process controllers (more than 2x daily)	2 4 0 1 2 2 3 4 5 1 2
	Maintenance Lab services	Indicators Telemetric Basic maintenance by process controllers Specialised maintenance by process controllers. Reading with instrumentation by process controllers. Full lab service on site but not done by process controllers, although still a management function. Chemical analyses done by process controllers. Jar tests to maintain optimum dosing by process controllers (more than 2x daily) Record readings Calculate daily flow and stock taking Calculate dosing and generate reports	2 4 0 1 2 2 3 4 5
Water Reclamation and	Maintenance Lab services	Indicators Telemetric Basic maintenance by process controllers Specialised maintenance by process controllers. Reading with instrumentation by process controllers. Full lab service on site but not done by process controllers, although still a management function. Chemical analyses done by process controllers. Jar tests to maintain optimum dosing by process controllers (more than 2x daily) Record readings Calculate daily flow and stock taking Calculate dosing and generate reports	2 4 0 1 2 2 3 4 5 1 2 4
Water Reclamation and reuse	Maintenance Lab service s Administration	Indicators Telemetric Basic maintenance by process controllers Specialised maintenance by process controllers. Reading with instrumentation by process controllers. Full lab service on site but not done by process controllers, although still a management function. Chemical analyses done by process controllers. Jar tests to maintain optimum dosing by process controllers (more than 2x daily) Record readings Calculate daily flow and stock taking Calculate dosing and generate reports Work on computer (not just check screen)	2 4 0 1 2 3 4 5 1 2 4 5
	Maintenance Lab service s Administration	Indicators	2 4 0 1 2 2 3 4 5 1 2 4 5 2 4 2
reuse	Maintenance Lab services Administration Power Generation Demineralisation	Indicators Telemetric Basic maintenance by process controllers Specialised maintenance by process controllers. Reading with instrumentation by process controllers. Full lab service on site but not done by process controllers, although still a management function. Chemical analyses done by process controllers. Jar tests to maintain optimum dosing by process controllers (more than 2x daily) Record readings Calculate daily flow and stock taking Calculate dosing and generate reports Work on computer (not just check screen) Record Readings KW daily production	2 4 0 1 2 2 3 4 5 1 2 4 5 2 4 5 2 4 1 - 5*
reuse	Maintenance Lab services Administration Power Generation Demineralisation Fluoridation	Indicators Telemetric Basic maintenance by process controllers Specialised maintenance by process controllers. Reading with instrumentation by process controllers. Full lab service on site but not done by process controllers, although still a management function. Chemical analyses done by process controllers. Jar tests to maintain optimum dosing by process controllers (more than 2x daily) Record readings	2 4 0 1 2 2 3 4 5 1 2 4 5 2 4 5 2 4 1 - 5* 5
reuse	Maintenance Lab services Administration Power Generation Demineralisation Fluoridation Reverse Osmosis	Indicators	2 4 0 1 2 2 3 4 5 1 2 4 5 2 4 2 4 2 1 - 5* 5 5
reuse	Maintenance Lab services Administration Power Generation Demineralisation Fluoridation Reverse Osmosis Activated carbon	Indicators	$ \begin{array}{c} 2 \\ 4 \\ 0 \\ 1 \\ 2 \\ 2 \\ 3 \\ 4 \\ 5 \\ 2 \\ 4 \\ 2 \\ 4 \\ 2 \\ 4 \\ 2 \\ 4 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5$
reuse	Maintenance Lab services Administration Power Generation Demineralisation Fluoridation Reverse Osmosis	Indicators	2 4 0 1 2 2 3 4 5 1 2 4 5 2 4 2 4 2 1 - 5* 5 5

* need to motivate number of points claimed eg. combination of chemicals.

SCHEDULE 2

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

Rating

Class of worl Range of points		E <30	D 30 – 39	C 40 - 59	B 60 - 70	A >70
Technology		discretion of th		neral in accordance with the Elements	ne following criteria:	Maximum
Infrastructure	kiloliti Install (kilow	n Capacity ir res per day (k ed power atts of install ' to operate)	$\ell(d) = \begin{cases} 500 \text{ to} \\ 5 \text{ 001 t} \\ 20 \text{ 001} \\ 50 \text{ 001} \\ >250 \text{ 0} \\ >250 \text{ 0} \\ \end{cases}$ ed = $\begin{cases} 0 - 5 \text{ kl} \\ 5 - 100 \\ 101 - 10 \end{cases}$	0. 5 000	Kℓ/d	2 4 6 8 10 1 1 5
Quality of intake water			Conser Industri Interna	tic vancy/Night soil al effluent recycle eg filtrate/centrat te	e, supernatant etc	1 – 5** 1 – 5** 2

	Reclamation/Reuse Type (Term)	Applications	Maximur
waste is discharged		quality standard is prescribed and estuaries	6
water resource into which treated water containing		marine discharge. Medium – e.g. all discharges to any river or stream except in specially identified areas High – e.g. Special standard or where a receiving water	2 4
Sensitivity of	Trade Effluent by-laws	Trade effluent by-laws exist and are implemented No trade effluent by-laws Low – e.g. oxidation pond with irrigation, evaporation pond,	0 5
		Calculate dosing and generate reports Work on computer (not just check screen)	4 5
	Administration	Record Readings Calculate daily flows and stock taking	1 2
		although still a management function Chemical analyses done by process controller	3 4
	Lab services	Reading with instrumentation by process controller Full lab service on site but not done by process controller,	2
Control Processes	Maintenance	None by process controllers. Basic maintenance by process controller. Specialised maintenance by process controller	0 1 4
		Odour control Standby power	1-3* 3
		On-site steam generation Partial to full plant automation	1-5* 1-3*
	Additional Factors	Sludge heating Gas engines, incineration, boilers	1-3* 3
		Sludge drying beds/lagoons Thermal sludge treatment	6 3
		Mechanical or physical/chemical sludge treatment including thickening, stabilisation and/or dewatering Aerobic digestion	7 2 1
		Anaerobic Digestion - <30 days retention - >30 days retention	2
	Sludge Treatment	Treated water containing waste re-use for potable purposes (this section of the plant must then be registered in terms of Schedule I)	Nil 4
		Treated water containing waste re-use for industrial purposes	2
		and UV 1-2)* Chemical De-chlorination Desalination/Membrane filters	2 4
		Reedbeds Sand filters Disinfection (eg. Chlorination, ammonium bromide, ozone	2 1 – 3*
	Tertiary Treatment	Maturation ponds	1
		Activated sludge: partial denitrification Activated sludge: Biological Excess phosphate removal Chemical Addition.	10 4
		Biodiscs Biofilters (Biof) Activated sludge: full nitrification	4 6 8
	Secondary Treatment	Oxidation ponds	2 3
	Ъ.	Flow balancing Primary sedimentation Sludge fermentation	4
		Hand/mechanical grit removal Automatic grit removal	2 2 2
arameters	Primary Treatment	Manually raked screens Automatic screens	1 2 1

Water Reclamation and reuse	Agricultural Irrigation	Crops irrigated	6
	Landscape irrigation	parks	3 3 3 3 3 3
	Industrial Activities	Cooling and process needs Power Generation	6 6 6
	Groudwater Recharge	spreading basins direct injection to groundwater aquifers	10 10
	Other non-potable uses Fire protection, air condition, toilet flushing, construction water and sanitary sewer	fire protection	4 4 4 4 4 4
	Potable reuse	Direct sewer treatment for potable supply	10

*points scored according to complexity of process – needs to be motivated 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.

က
ш
$\overline{\mathbf{Z}}$
뿌
$\overline{\mathbf{O}}$
õ

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 a	Years appropriate experience per Class of Process Controller	experi Con	tperience Controller	oer Cla	iss of F	roces	S
		Grand- parented	In Training (L)	-	=	=	2	>	5
1.	None	10							
. .	St 6/ Grade 8		0	ı	I	1	ı	ı	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					
	St 6/ Grade 8 plus **Maintenance Workers Certificate; or		0	4	I	ı	1	1	1
r,	St 6/ Grade 8 plus **Treatment Training Certificate; or								
ć	NQF 1 GETC: Water Services								
.	St 7/ Grade 9 plus **Maintenance Workers Certificate; or		0	e	I	I	1	1	1
ы.	St 7/ Grade 9 plus **Treatment Training Certificate; or								
ຕ່	NQF 1 GETC: Water Services plus the Core Unit Standards from the Appropriate NQF 2 Qualification								
. .	1. St 8/ Grade 10 (or NTC 1) plus **Maintenance Workers Certificate; or		0	2	5	I	1		ı
i,	St 8/ Grade 10 (or NTC 1) plus **Treatment Training Certificate; or								
ы.	St 8/ Grade 10 (or NTC 1) plus Water and Wastewater Treatment practice N1; or								

	EDUCATIONAL REQUIREMENTS	Years a	Years appropriate experience per Class of Process Controller	experi Con	tperience p Controller	ber Cla	iss of I	roces	S
		Grand- parented	In Training (L)	-	=		2	>	2
4	St 8/ Grade 10 (or NTC 1) plus the Core Unit Standards from Appropriate NQF 2 Qualification; or								
<u></u> .	Appropriate NQF 2 Qualification								
,	NTC 1 in Water and Wastewater Treatment practice		0	1.5	4	ı	ı	1	•
,	Std. 8/ Grade 10 (or NTC I) plus Operators certificate or		0	-	т	ი	ı	ı	ı
~	St 8/ Grade 10 (or NTC 1) plus the Core Unit Standards from the Appropriate NQF 3 Qualification.								
~ .	St 9/ Grade 11 (or NTC II) plus Operators certificate or		0	0.5	2	2	15		ı
5.	St 9/ Grade 11 (or NTC II) plus the Core Unit Standards from the Appropriate NQF 3 Qualification; or								
ы.	NTC II in Water and Wastewater Treatment practice; or								
4	Appropriate NQF 3 Qualification.								
~`	Matric/ Grade 12 (or NTC III) (Mathematics + Science)		0	4	I	I	I	I	I
.	Matric/ Grade 12 (or NTC III) plus **Maintenance Workers Training Certificate; or		0	-	1	1	I	1	1
r,	Matric/ Grade 12 (or NTC III) plus **Treatment Training Certificate								
. .	Matric/ Grade 12 (or NTC III) plus Operators Certificate; or			0	0.5	с	8	15	ı
'n	Matric/ Grade 12 (or NTC III) plus Water Treatment practice N3; or								
ю [.]	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; or								
5.	NTC III in Water Treatment practice; or								
Ö	NTC III in Wastewater Treatment practice; or								
۲.	Appropriate NQF 4 Qualification								

	EDUCATIONAL REQUIREMENTS	Years a	Years appropriate experience per Class of Process Controller	experi Con	cperience p Controller	oer Cla	ass of I	Proces	ş
		Grand- parented	In Training (L)	-			≥	>	5
~ .	National Diploma or National Technical Diploma or NTC VI or 3 year BSc (all in appropriate field); or					0	7	9	1
5	2. Appropriate NQF 5 Qualification								
.	B Tech (Higher National Diploma) or 4 year BSc (both in appropriate field); or						0	4	15
i,	2. Appropriate NQF 6 Qualification								
. .	Professional Engineer or Professional Engineering Technologist (Act 81 of 1968) in appropriate field; or a Natural Scientist (Act 55 of 1982) in appropriate field.						0	ო	12

- The non-prescriptive 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 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 Government Notice No. R. 2834 of 27 December 1985 and who have not achieved the relevant unit standards by recognised prior learning assessment. 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. **

NOTES ON SCHEDULE

- 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 III above.
- 1.1 NQF LEVEL 1

GETC: Water Services

2
Ш
>
ш
ш
Ø
ž
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 Waste Water Process Control
- 1.3.2 National Certificate: Industrial Water Treatment Plant Operation
- 1.4 NQF LEVEL 4
- Further Education and Training Certificate: Water and Waste Wastewater Process Supervision 1.4.1
- 1.4.2 National Certificate in Industrial Water Treatment Control Operations
- 1.5 NQF LEVEL 5
- A generic qualification in management that includes as electives a selection of registered water related unit standards at the NQF 5 level 1.5.1
- 1.6 NQF LEVEL 6

No unit standard based qualifications have yet been developed at this level for the water industry but are foreseen in the future. Equivalent whole qualifications are provided by tertiary education institutions. Re-evaluation of present operator classification in terms of Government Notice No. R. 2834 of 27 December 1985 may be requested. Process Controller registration in terms of Schedule III is only an indication of the persons' level of competency and in no way obliges the employer to amend a salary or create a new position for such persons.

the Higher Education Qualification Framework (HEQF) (NQF Levels 1 to 10). However, this will not impact on the number of years of appropriate Adjustment/new level assignment of the B Tech, BSc (3 and 4 year) and the NQF Level 5 qualification may take place in future to align them to experience and Class of Process Controller currently attached to this level. Any Future NQF Level 6 qualification will be developed in accordance with the criteria and requirements set for the HEQF. 20 No. 36958

22 No. 36958

This gazette is also available free online at www.gpwonline.co.za

Printed by and obtainable from the Government Printer, Bosman Street, Private Bag X85, Pretoria, 0001 Publications: Tel: (012) 334-4508, 334-4509, 334-4510 Advertisements: Tel: (012) 334-4673, 334-4674, 334-4504 Subscriptions: Tel: (012) 334-4735, 334-4736, 334-4737 Cape Town Branch: Tel: (021) 465-7531 Gedruk deur en verkrygbaar by die Staatsdrukker, Bosmanstraat, Privaatsak X85, Pretoria, 0001 Publikasies: Tel: (012) 334-4508, 334-4509, 334-4510 Advertensies: Tel: (012) 334-4673, 334-4674, 334-4504 Subskripsies: Tel: (012) 334-4735, 334-4736, 334-4737 Kaapstad-tak: Tel: (021) 465-7531

This gazette is also available free online at **www.gpwonline.co.za**