

Point Source Certification: NR114 Revision

Jack Saltes
Lisa Bushby



Why Change?

- Educational delivery methods, especially on-line
- Succession to new generation of operators
- New wastewater technologies
- Importance of collection systems/CMOM
- More operator choices towards advanced certification
- Sustainability by WIDNR (Administering and Maintaining)
- Less exams
- State apprenticeship program
- New training centers at WRWA -Plover and UW-Stevens Point

Major Changes:

- Regrouped/revised subclasses
- New subclasses (total nitrogen, recirculating media filters, anaerobic treatment, collection systems)
- Two levels of plants/operators (basic and advanced)
- Criteria for being an advanced plant
- Advanced certification point system

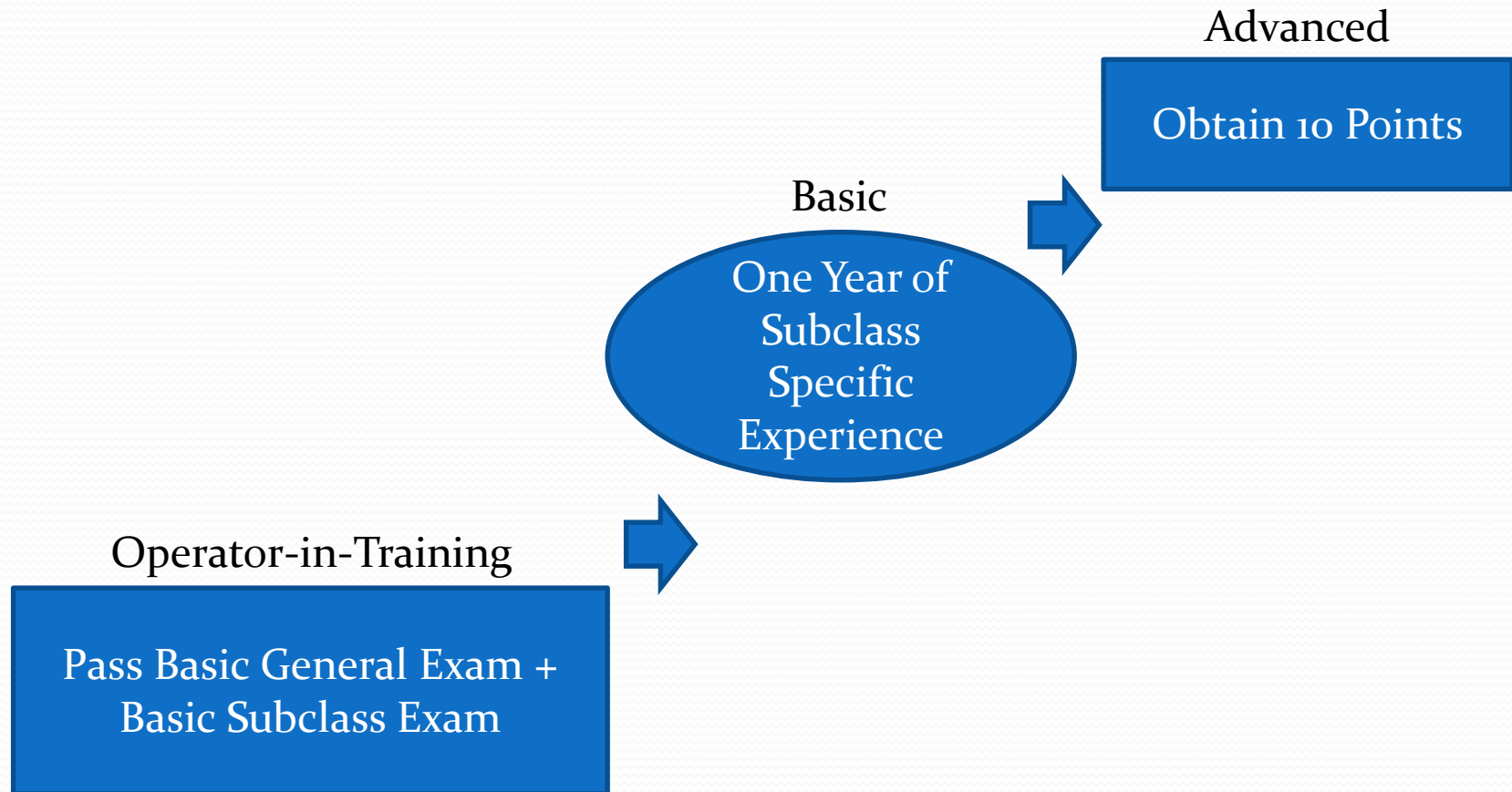
New Subclasses

CATEGORY	SUBCLASS	SUBCLASS NAME	DESCRIPTION
Biological treatment	A1	Suspended Growth Processes	Activated sludge and variants
	A2	Attached Growth Processes	Trickling filters, RBCs and biotowers
	A3	Recirculating Media Filters	
	A4	Ponds, Lagoons and Natural Systems	
	A5	Anaerobic Treatment of Liquid Waste	High strength liquid waste treatment system
Solids separation	B	Solids Separation	Clarifiers, membranes, filters, tertiary phosphorus removal, etc
Solids treatment	C	Biological Solids/Sludge – Handling, Processing and Reuse	Aerobic and anaerobic digestion, thickening, dewatering, land application
Nutrient removal	P	Total Phosphorus	
	N	Total Nitrogen	
Disinfection	D	Disinfection	Chlorination, ultraviolet radiation, ozone
Laboratory	L	Laboratory	Registered or certified on-site laboratories
Special	U	Unique Treatment Systems	Unique, special treatment plants that use biological, chemical or physical methods
Collection System	SS	Sanitary Sewer Collection System	

New Collection System Subclass

- Owners of treatment works, which includes the treatment plant and sanitary sewer collection systems associated with it, shall have *at least one operator in charge certified in the new collection system subclass*.
- For satellite sewerage collection systems, this certification will be voluntary.
- Once the collection system study guide and exam have been developed by the department, collection system operators will have **5 years** to obtain collection system certification upon issuance of their WPDES permits.

Operator Levels



New Advanced Point System

TYPE	POINT METHOD	POINTS	MINIMUM HOURS
Experience	48 Months Work Experience, Minimum	4	
	60 Months Work Experience	5	
	72 Months Work Experience, Maximum	6	
Degree	4 Yr Undergraduate or Graduate Degree	6	
	2 Yr Water/Wastewater Associates Degree	6	
Apprenticeship	State Approved Apprenticeship Program	6	
Exam	100 Multiple Choice Q&A Exam	4	
Advanced course		2	80
		1.5	60
		1	40
		0.5	20
Advanced Certification =		10 points total	

Classification of WWTPs

A facility that meets any one of the following criteria will be “Advanced”:

- Is a mechanical plant with an annual average design flow greater than 1.0 MGD
- Has a biochemical oxygen demand (BOD) limit of 10 mg/L or less
- Has surface water limits for total phosphorus or total nitrogen and utilizes a biological nutrient removal process in their removal
- Uses a tertiary phosphorus removal process to achieve ultralow phosphorus limits
- Is a municipal treatment plant that receives wastewater from a major contributing industry
- Is a municipal treatment plant that produces Class A biosolids.

Operator-In-Charge

- Must be certified in all the subclasses of the plant except laboratory
- In the event of the unexpected loss of an OIC:
 - An OIT that has passed the general wastewater exam and subclass exams may be the designated OIC of a basic plant and would be given one year to obtain the experience
 - The owner of an advanced plant would need to find an advanced operator certified in all the subclasses of the plant.

Grandfathering: Subclass conversion

Old Description	Old Subclass		New Description	New Subclass
<i>Primary Treatment</i>	<i>A</i>	→	Solids Separation	B
<i>Trickling Filters and RBCs</i>	<i>B</i>	→	Biological Treatment - Attached Growth	A2
		→	Solids Separation	B
		→	Biological Solids/Sludge Handling and Processing	C
<i>Activated Sludge</i>	<i>C</i>	→	Biological Treatment - Suspended Growth	A1
		→	Solids Separation	B
		→	Biological Solids/Sludge Handling and Processing	C
<i>Stabilization Ponds and Aerated Lagoons</i>	<i>D</i>	→	Ponds, Lagoons and Natural Systems	A4
<i>Disinfection</i>	<i>E</i>	→	Disinfection	D
<i>Anaerobic Digestion</i>	<i>F</i>	→	Biological Solids/Sludge Handling and Processing	C
<i>Mechanical Sludge Dewatering</i>	<i>G</i>	→	Biological Solids/Sludge Handling and Processing	C
<i>Filtration</i>	<i>H</i>	→	Solids Separation	B
<i>Phosphorus Removal</i>	<i>I</i>	→	Nutrient Removal – Total Phosphorus	P
<i>Laboratory</i>	<i>J</i>	→	Laboratory	L
<i>Special K</i>	<i>K</i>	→	Unique Treatment Process or Recirculating Sand/Gravel Filters	U or A3
<i>Electroplating/Metal Finishing</i>	<i>L</i>	→	Unique Treatment Process	U

Grandfathering: Grade levels

1. Grade 3 or 4 in any subclass (except L and K), will receive 10 points towards Advanced certification.
2. Having these 10 points, any subclass Grade 1 or higher will transfer to the Advanced level.
3. Grade T will become Operator-in-Training (OIT).

Example Conversion:

Current Subclasses/Grades	Converted Subclasses/Grades
Ponds/Aerated Lagoons – Grade T	Ponds, Lagoons, & Natural Systems – OIT
Activated Sludge – Grade 4	Biological Treatment – Attached Growth – Advanced Solids Separation – Advanced Biological Solids/Sludge Handling and Processing – Advanced
Mechanical Sludge – Grade 4	Biological Solids/Sludge Handling and Processing – Advanced
Laboratory – Grade 2	Laboratory – Advanced

Example Conversion:

Current Subclasses/Grades	Converted Subclasses/Grades
Primary Treatment – Grade 2	Solids Separation - Basic
Mechanical Sludge – Grade 2	Biological Solids/Sludge Handling and Processing - Basic
Disinfection – Grade T	Disinfection – OIT

Experience:

Document it! Before the code goes into effect.

Experience Forms are available online at <http://dnr.wi.gov>, search keywords “Operator Certification”

State of Wisconsin
Department of Natural Resources
Operator Certification Program
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Wastewater Operator Certification Experience
Form 3400-066A (R 3/13) Page 1 of 4

Notice: Pursuant to ss. 281.17 and s. 281.98, Wis. Stats., and s. NR 114.14, Wis. Adm. Code, the department may seek penalties, or may revoke, suspend or refuse to renew a certification for reasons such as making false statements on this form. Wastewater operators may use this form to document experience required under s. NR 114.09, Wis. Adm. Code, for a certification grade level. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Public Records Laws (ss. 19.31-19.39, Wis. Stats.).

If this form is incomplete, experience will be denied. Mail completed form to your regional coordinator. Find your regional coordinator online at <http://dnr.wi.gov> and search keywords "Operator certification"

Operator Information			
Last Name	First	MI	Certification Number (WI only)
Street Address (Home)			

New operators not at Grade 3 or 4

Pass current Advanced General Exam and at least 4 Advanced Subclass exams =
Credit for new Advanced Exam (worth 4 points)

Timeline

- Dec 2013 – Feb 2014: Seek final adoption from Natural Resources Board
- Spring 2014: Legislative Review
- **Spring 2015**: Implementation of new rule

Questions?

Jack Saltes

608-264-6045

Jack.Saltes@Wisconsin.gov

Lisa Bushby

608-266-0498

Lisa.Bushby@Wisconsin.gov