

## **Appendix B—Five-Year External Review Report**

Electronic statewide survey results of drinking water and wastewater certified operators, system owners, training and exam providers, and examinees

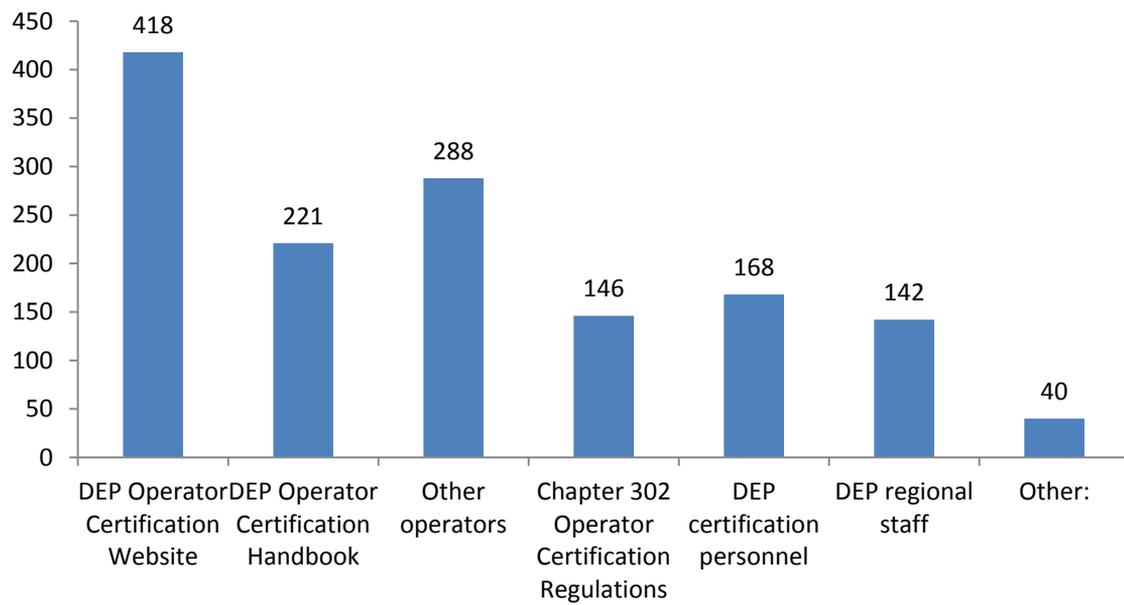
Survey conducted from July 1 through September 30, 2015

# Operator Certification Summary Report

10/2/2015 Survey: Operator Certification Program Survey

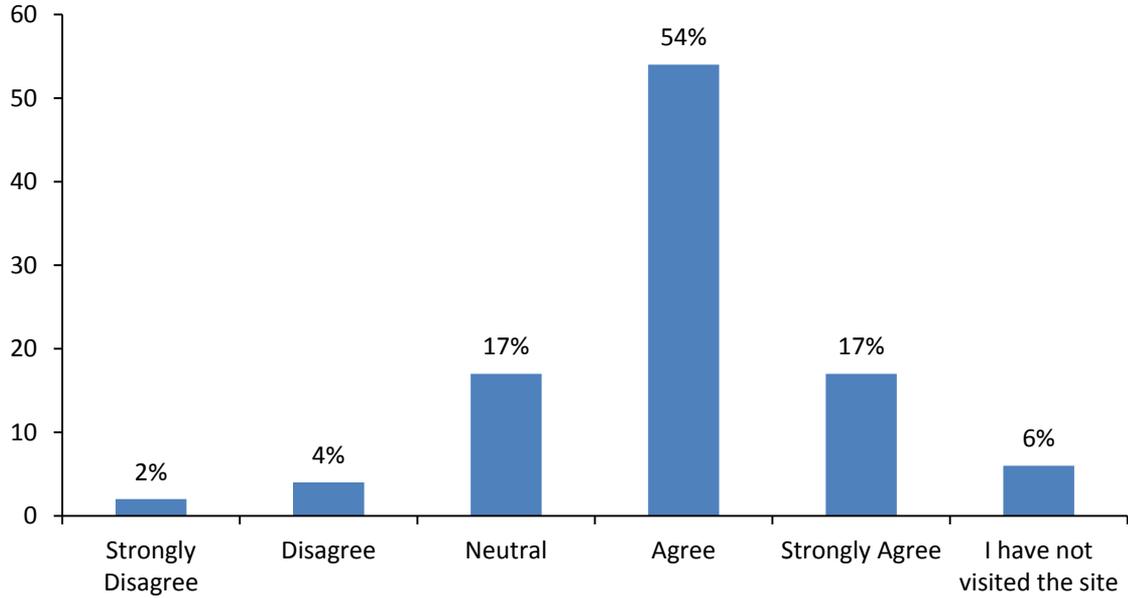
494 Individuals completed the survey

## 1. I have used the following as sources of information about the Operator Certification Program (check all that apply):



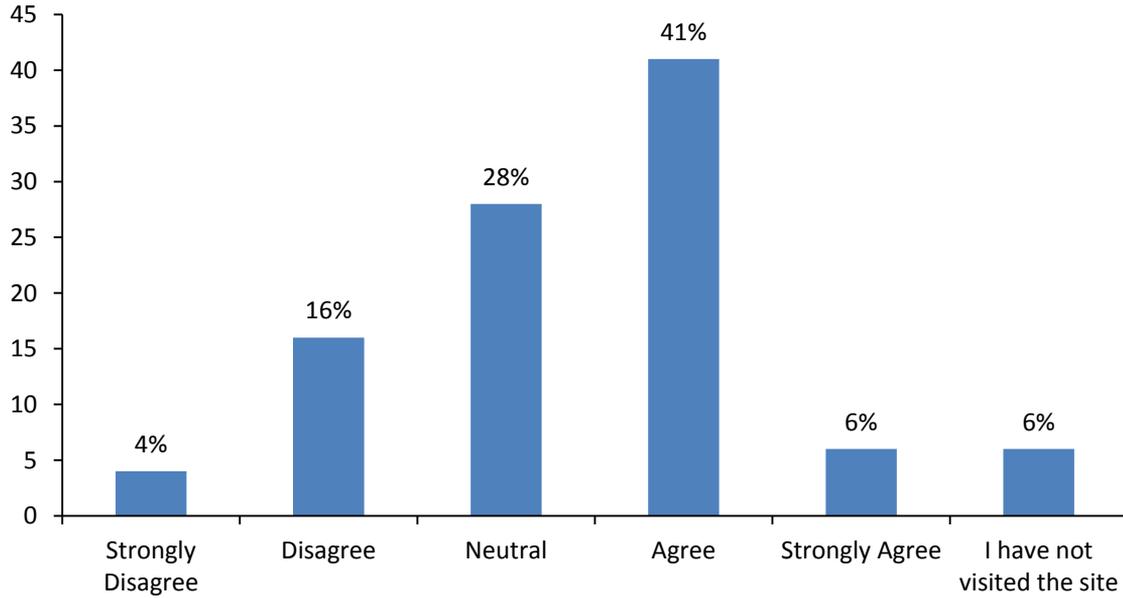
Value	Percent	Count
DEP Operator Certification Website	86.0%	418
DEP Operator Certification Handbook	45.5%	221
Other operators	59.1%	288
Chapter 302 Operator Certification Regulations	30.0%	146
DEP certification personnel	34.5%	168
DEP regional staff	29.1%	142
Other:	8.3%	40
Total		486

**2. The DEP Operator Certification website provides useful information:**



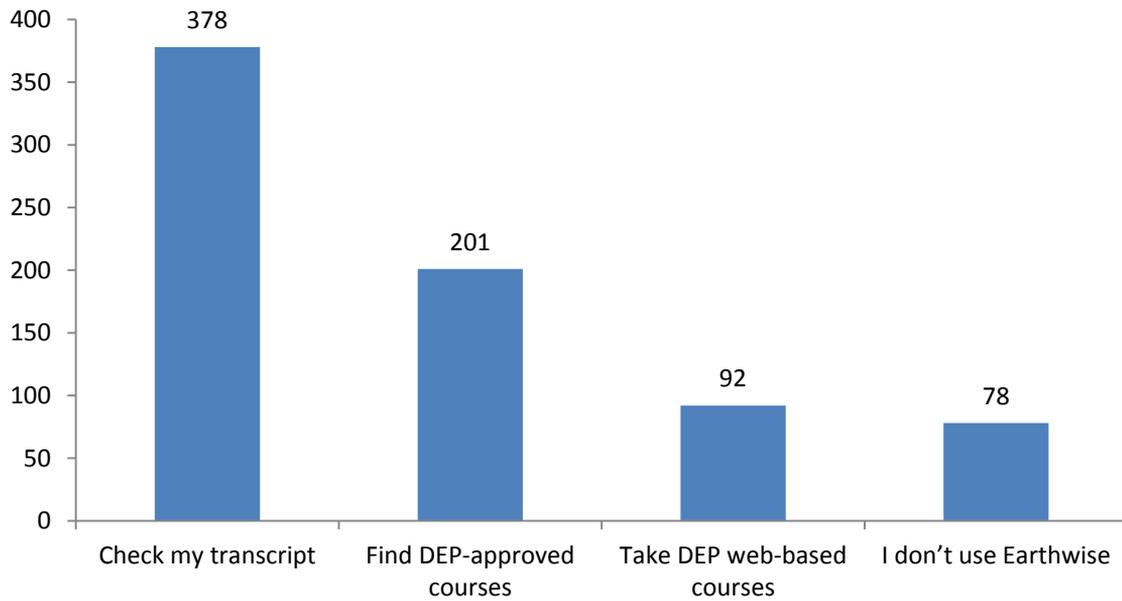
Value	Percent	Count
Strongly Disagree	1.9%	9
Disagree	4.2%	20
Neutral	17.4%	84
Agree	53.7%	259
Strongly Agree	17.0%	82
I have not visited the site	5.8%	28
Total		482

### 3. The DEP Operator Certification website is well organized and easy to use:



Value	Percent	Count
Strongly Disagree	4.4%	21
Disagree	16.1%	77
Neutral	27.6%	132
Agree	40.5%	194
Strongly Agree	5.6%	27
I have not visited the site	5.9%	28
Total		479

4. I use the DEP Earthwise Academy website to (check all that apply):

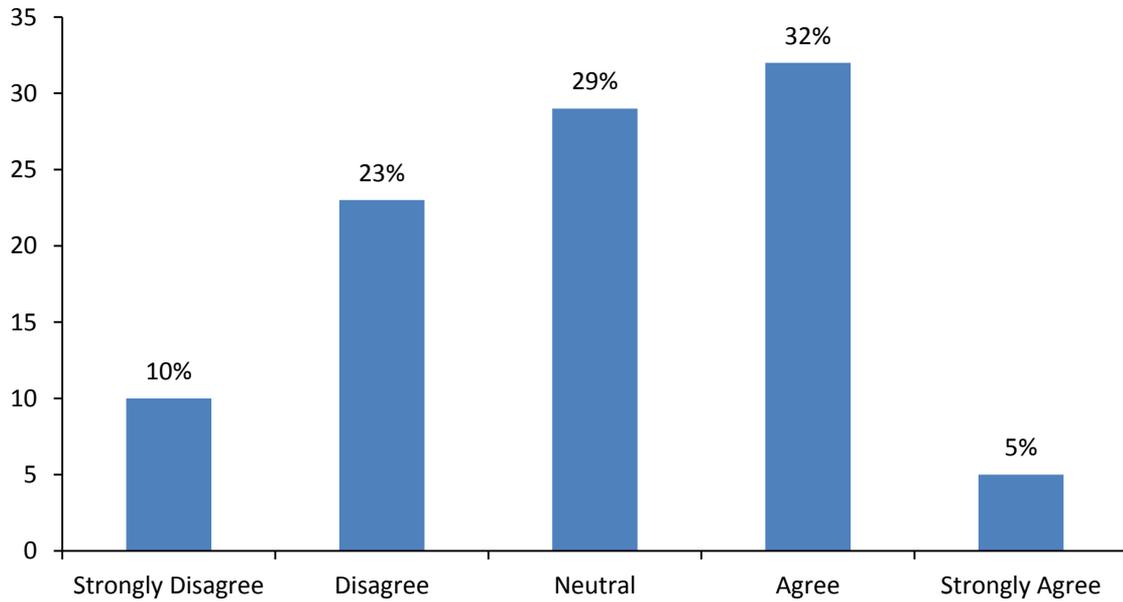


Value	Percent	Count
Check my transcript	78.1%	378
Find DEP-approved courses	41.6%	201
Take DEP web-based courses	18.8%	92
I don't use Earthwise	16.2%	78
Total		485

5. If you have contacted DEP certification personnel for information, please tell us how much you agree or disagree with the following. The DEP staff member was:

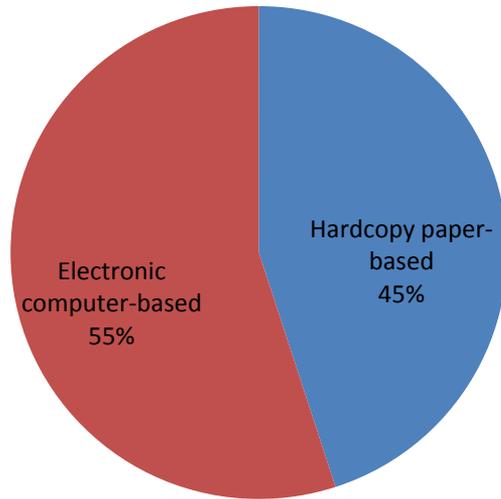
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Responses
<b>Knowledgeable</b>	1.7 % 7	3.2 % 13	19.9 % 80	53.2 % 214	21.9 % 88	402
<b>Helpful</b>	2.2 % 9	3.5 % 14	18.4 % 74	53.0 % 213	22.9 % 92	402
<b>Courteous</b>	1.3 % 5	2.5 % 10	18.0 % 72	51.9 % 207	26.3 % 105	399

6. Over the last two years, the geographic location of exams has been sufficient to prevent operators from traveling long distances to take exams:



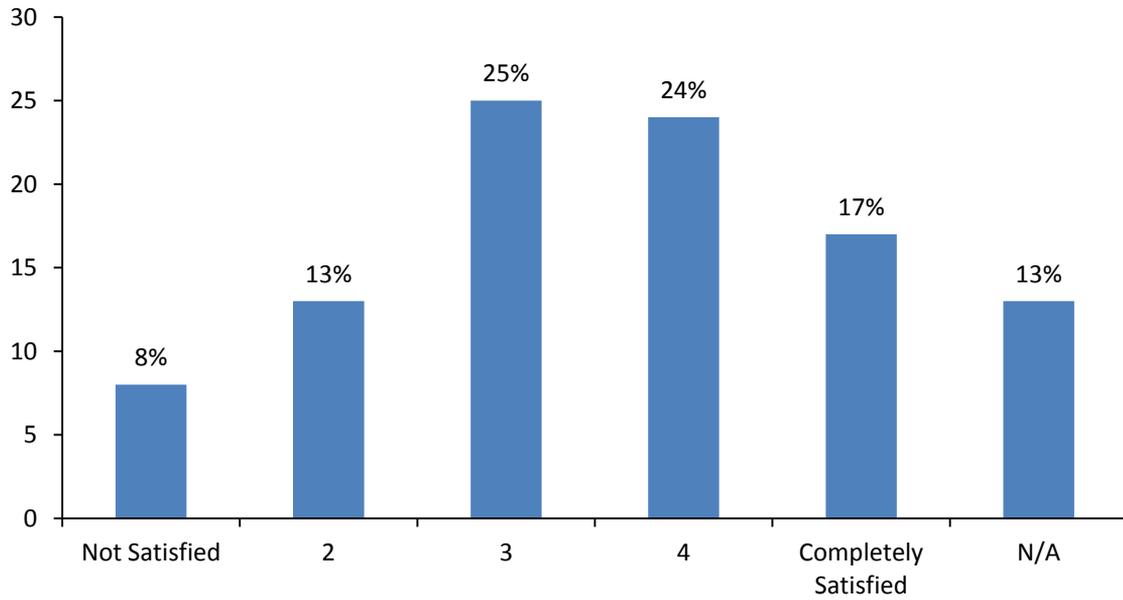
Value	Percent	Count
Strongly Disagree	10.0%	48
Disagree	23.3%	112
Neutral	29.0%	139
Agree	32.3%	155
Strongly Agree	5.4%	26
Total		480

## 7. My preference for the format of certification exams is:



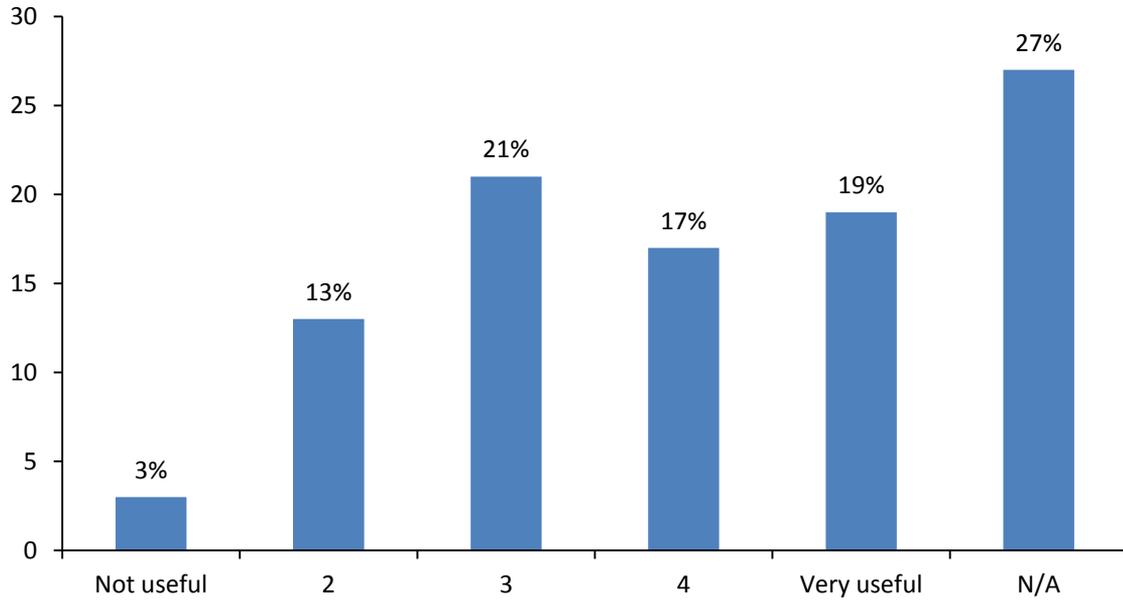
Value	Percent	Count
Hardcopy paper-based	44.6%	212
Electronic computer-based	55.4%	263
Total		475

**8. Please rate your satisfaction with the number of self-study materials available to prepare for the operator certification exams:**



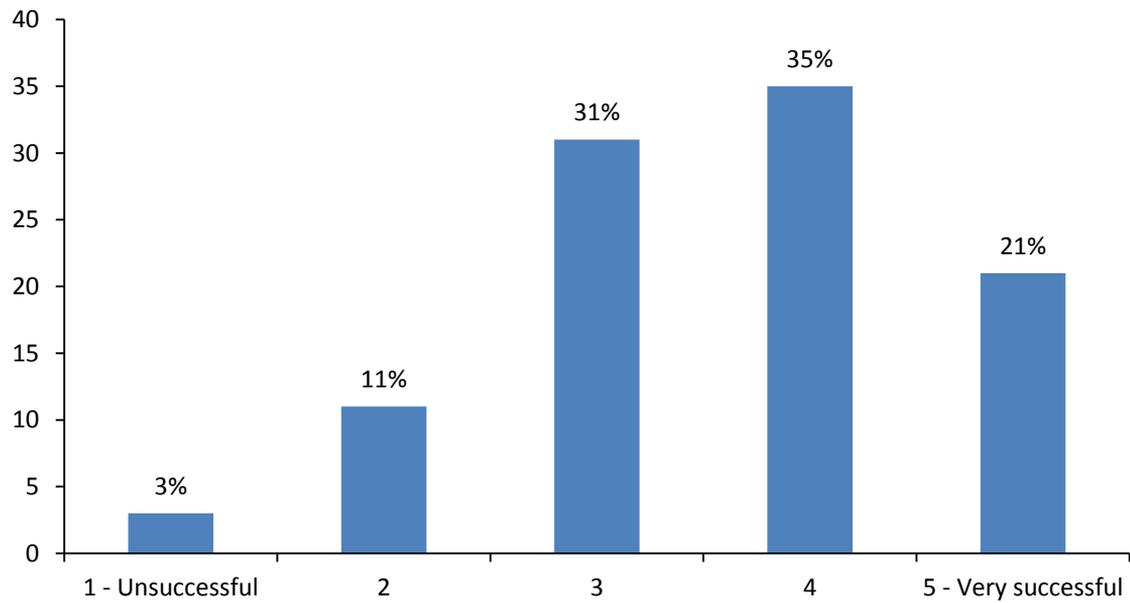
Value	Percent	Count
Not Satisfied	7.8%	37
2	13.5%	64
3	24.8%	118
4	24.0%	114
Completely Satisfied	16.6%	79
N/A	13.5%	64
Total		476

**9. If you used the DEP Training Modules to prepare for exams, how useful was the material in preparing you?**



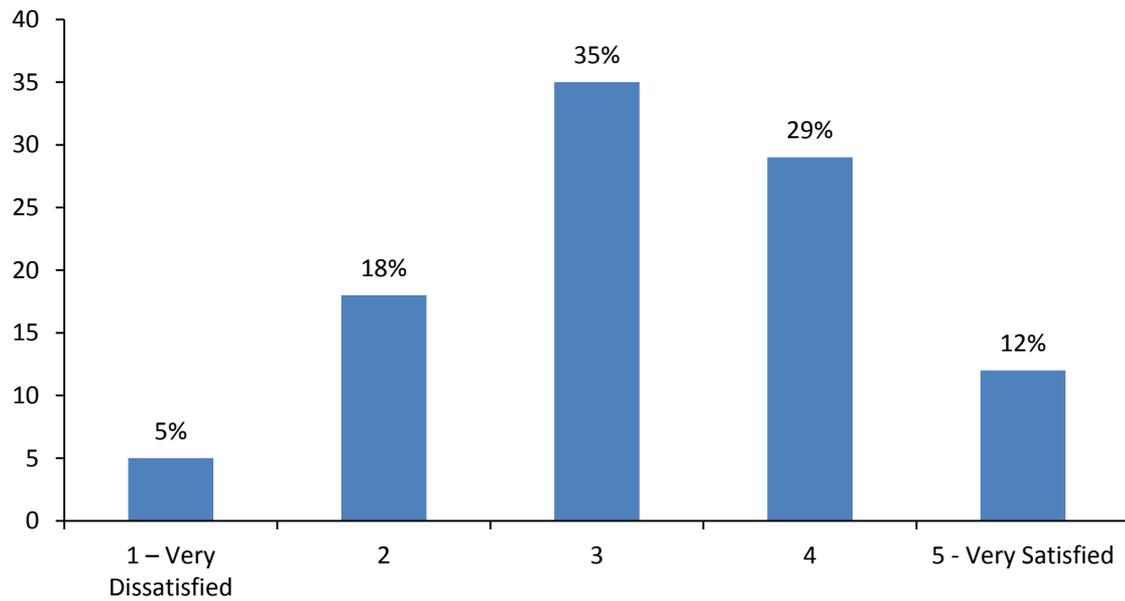
Value	Percent	Count
Not useful	3.2%	15
2	12.5%	59
3	21.4%	101
4	17.0%	80
Very useful	19.1%	90
N/A	26.8%	126
Total		471

**10. Rate your success in finding DEP-approved courses to satisfy the continuing education requirements:**



Value	Percent	Count
1 - Unsuccessful	2.5%	12
2	10.6%	50
3	30.5%	144
4	35.0%	165
5 - Very successful	21.4%	101
Total		472

**11. Please rate your satisfaction with the variety of course topics available for continuing education:**



Value	Percent	Count
1 – Very Dissatisfied	5.3%	25
2	18.2%	86
3	35.2%	166
4	29.2%	138
5 - Very Satisfied	12.1%	57
Total		472

**12. Please list course topics that you would like to see offered for continuing education:**

Count	Response
1	0
1	A good electrical course.
1	Activated Sludge
1	Activated carbon
1	Activated sludge
1	Activated sludge advanced
1	Activated sludge and common problems
1	Activated sludge process, routine testing, equipment maintenance, sample results reporting,
1	Activated sludge- dealing with filamentous growth and treatments.
1	Activated sludge.
1	Additional Hands on training classes
1	Alternative collection and treatment systems
1	An easy to understand collection system manual that is relevant to the test.
1	Anaerobic sludge digestion      Hands on pump maintenance and troubleshooting
1	Anaerobic digester operation
1	Anything new, same old material over and over seems like a waste of time and money.

1	Anything related to very small systems
1	Asset Management, safety, reporting
1	BNR process specific courses (oxidation ditches..etc)
1	Basics of lubrication of equipment & Basic electrical troubleshooting and problem diagnosis
1	Between PWEA and Rural Water they cover the topics well.
1	Biofiltration
1	Biological Treatment, Nutrient reduction and removal, Disinfection alternatives
1	CPR, billing/administration
1	Chlorine course
1	Cross-connection control, any training on new regulations
1	Customer relations
1	DMRs, Disgters, General Information
1	Edmr
1	Electrical Course
1	Electronic controls in Water and Waste water systems
1	Emerging contaminants; chloramination
1	Environmental Ethics
1	Ethic class
1	Expand on current topic and add computer classes - excel, power point, etc
1	FOG programs

1	GIS mapping and using more technology in the field
1	Get more specific For example : A course on Aerobic Digestion pros, cons do s and don`ts
1	Greater depth in regard to treatment/process
1	Green sand
1	Green sand / softening
1	Hands on Mechanical
1	Hazwhopper , Evoc,
1	How about water and waste water treatment.
1	How other plants operate/ tours or open houses
1	How to Make a \$1 Million Instantly
1	How to communicate with, and convince emotional thinkers on a rational basis.
1	How to make repairs on equipment (pumps), signs that there are problems,what to look out for
1	How to use the most of a scada system
1	I enjoy the topics, however the training is very fundamental
1	I have just started the certification process
1	I would like to see more hands on training classes
1	In depth course on activated sludge, NOT part of general wastewater course
1	Influence of temperature on the treatment process, Using ORP and DO meters to monitor treatment
1	Inventory, Management, Daily Reports

1	Issue is lack of credits available for course not enough
1	Lab Safety, Lab Testing,
1	Lab classes
1	Lab-specific topics
1	Laboratory Safety,
1	Laboratory analysis
1	Laboratory, sample collection (wastewater and water), ethics
1	Leak Detection, I & I investigation, hydrant flow testing
1	Legal responsibilities of the operator .
1	Liability; Case Law - Enforcement
1	Like to more management type level classes and certification
1	MORE OPERATIONAL TROUBLE SHOOTING AND PROBLEM SOLVING
1	Management
1	Management, SCADA and all things tech
1	Math
1	Math Fundamentals, Any SBR Topics
1	Mechanical Handson Training
1	Mechanical Maintenance
1	Monitoring Waiver Application Process (Drinking Water), Public Notification Requirements/Process
1	More Membrane and RO info for desalination.
1	More about watersheds

1	More advanced courses.
1	More complex issues. More microbiology, chemistry
1	More courses aimed specifically for Water Distribution systems and Wastewater Collection systems
1	More courses geared to small water and wastewater systems.
1	More courses involving meeting the reporting requirements; both when and how to.
1	More courses needed for secure drinking water in Phila area and storm water courses
1	More hands on practical forms (not seminar based)
1	More information on specific wastes
1	More lab classes
1	More lab related courses
1	More laboratory courses
1	More on gas chlorine and fluoride and effects it has in drinking water
1	More prep for op cert exams (math, chemistry etc.)
1	More science based topics. Chemistry and Biology
1	More up to date health and safety courses and confined space entry.
1	Most operators I know are asking for more math courses
1	N/A
1	NA
1	Na

1	No preference
1	None in particular
1	Operators Legal Responsibility
1	Optimization processes for THM/HAA5 removal in the treatment process
1	PRV operation & maintenance, variable frequency drives use, storage tank painting
1	Pressure reducing valves, pressure relief valves
1	Pretreatment, GIS, More Laboratory Classes
1	Proactive operator
1	Problem Solving (how to trouble-shoot)
1	Pumps
1	Regulations, chemistry, hydraulics
1	SBR specific training
1	SBR specific training for Wastewater
1	STORM WATER CLASS ALONG WITH WASTE WATER CLASS
1	Safety - Trenching,
1	Safety, Laboratory, Advanced Operations,
1	Sludge Digestion Systems & Process Control (Anaerobic/Aerobic)
1	Small system drinking water courses
1	Sos discharge
1	Source Water Protection, Handling Emergency Conditions (Spills, Main Breaks, etc)

1	Stormwater Management
1	System Automation
1	System maintenance and improvements
1	Teaching on the regulations
1	Testing procedures.
1	Topic related to completing DMRs.
1	Training for using the eDMR
1	Training's should be unilaterally designed around all sub classes and real world site knowledge
1	Treatment, Distribution/collection, filter operation/maintenance
1	Troubleshooting water/wastewater control electronics
1	Up and Coming technology, BNR Operations problem solving, please allow credit carryover
1	W & WW
1	Waste water plant mechanics training
1	Wastewater Operations Troubleshooting, BNR Process Control, Fundamentals of Wastewater Treatment
1	Wastewater treatment
1	Water
1	Water Reuse
1	Water chlorination
1	advance class ii and class iv water treatment certification
1	advantages to differnt chemicals, more on filter options,

1	back hoe operation, equipment maintenance, electrical diagnosis
1	basic science
1	chemical storage, filtering, water treatment
1	class geared toward the tests
1	classes by specific subclass
1	clean up
1	computer/web use and security
2	confined space
1	corrosion control exam prep
1	cutting edge technology, future innovations by operators,
1	dealing with dep inspectors
1	dechlorination
1	eDMR and dwler training
1	eDMR training, DMR reporting information on worksheets
1	electrical SCBA Cert. CPR Cert. Lifting and Rigging Cranes ect. Lock out tag out
1	electrical topics
1	electricity/electronics, mechanics/engineering, computer use;data handling per application
1	filament control
1	hach equipment
1	infiltration/inflow
1	leak detection

1	lift stations
1	maintenance
1	management - budget, 5 & 10 year planning, PLC training
1	more beginning and intermediate math for trainees
1	more electrical
1	more for advanced operators
1	more safety
1	more topics on actual plant operations and maintenance besides activated sludge
1	new dep regulations because it keeps changing without any notice
1	none
1	nutrient removal, trouble shooting, expected sludge generation and expected disposal rates
1	OPERATIONS FOR high SOLIDS TREATMENT PROCESSES
1	on how to do nitrates
1	operation of small systems, study of reporting rules.
1	regulation update short course online
1	regulation updates and regional DEP classes with meet and great
1	regulations
1	regulations, sampling, waterline repair, line locating, things geared towards new operators
1	relevant college, trade school and adult education courses
1	rtrc class

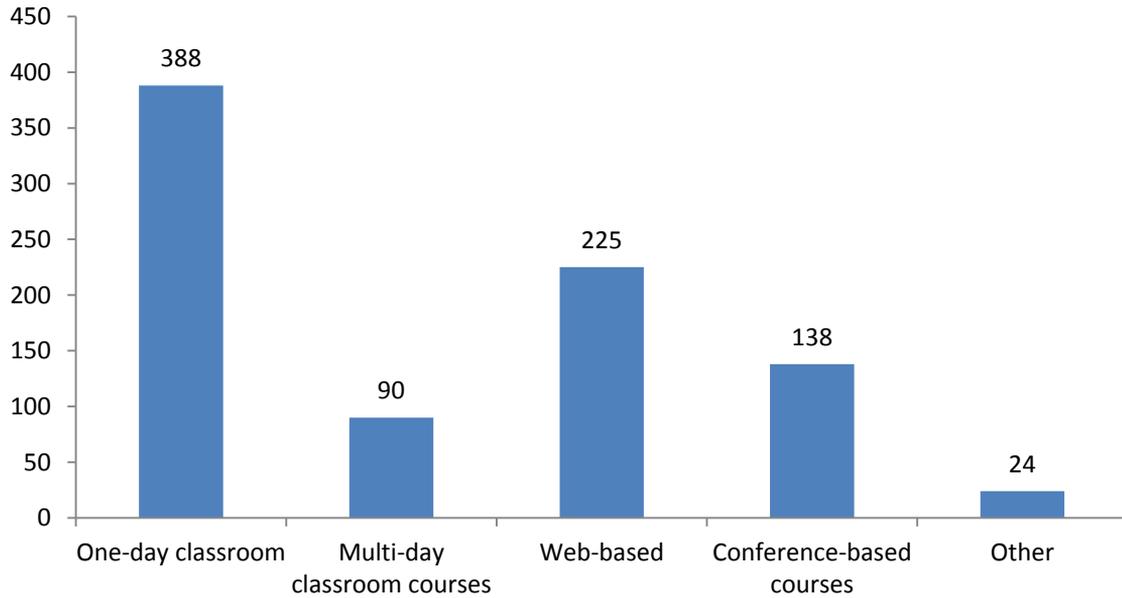
1	safety
1	safety programs either web based or class room
1	storm water, grease trap inspections, management, nutrient credit
1	supervisory and management training; regulatory training
1	sustainability / pump efficiency / alternative energy /
1	system monitoring
1	too restrictive on topics, costs, and locations
1	training on ALL subclasses not just the most common
1	training on the regulations
1	troubleshooting
1	up date new reg that are going to effect us
1	uv, and electronic
1	waste water math
1	wastewater - digestion, drying
1	water quality, nitrification, chloramines
1	water tank maintenance, proper disinfection afterwards, water loss due to maintenance
1	would like handbooks to be more useful and cover what's actually on the test
1	Distribution, Corrosion Control, Would be nice to have a course at a facility that is covered by the course materials, (ie greensand at a greensand filtration plant)
1	Basic Electric (VFDs), Basic SCADA (Navigation and Development), Material Failure (Fatigue), Small System Design,

	Regulatory Spot Light
1	Biosolids Handling and Disposal Options, Building Maintenance Programs for Lifts stations, etc. More management options
1	Anything put together better than 90% of the course available. A lot of them are thrown together like the security course. Terrible.
1	Biological process breakdown, none taught by sales reps, basic mechanical, deeper scientific courses to build on BNR
1	practical distribution service/repair procedures(does/don'ts) there is more to distribution than hydrants
1	Administrative preparedness (O&M, ER Plans), Rule review and refresher (LCR, RAD Rule), Chemical Safety
1	samplers & BMP for sample collection, using a microscope to debug problems with plenty of lab time
1	safety, lab, record keeping, how to write sops, water main installation and disinfection, public relations
1	Rate Case studies showing the results of good and poor planning, recruiting new operators (how to), limits setting - one size does not fit all, sprayfield operation and maintenance
1	Please offer more basic office software classes. Most operators barely know how to turn a computer on.
1	A course on the testing process would have been helpful. A parasite class would help, too. For example, water fleas, midge larvae, other critters that disrupt processes
1	SCADA & Controls, comparisons/contrast of sewer lift station pump types O&M and up front costs, Water pump station O&M upgrade considerations
1	System operation & maintenance, hydraulics, sources &

	treatment, disinfection, chemical treatment, basic sampling & lab procedures, water storage, and many, many more. The list can go on forever.
1	basic electric for operators, basic fuses, reading voltages and amperages, reading control panel prints
1	More in depth process control. Regulation, technology based with a future outlook theme. Safety related again more in depth. Laboratory topics such as proper sampling techniques and express reasons why the samples
1	Topics for operators who have 25 plus years in the wastewater industry. Continuing Ed classes are repetative and a waste of time.
1	I would like to see an operators round table to discuss plant specific problems with other operators and educators.
1	water/waste water 101, grade school edition. most municipality's hire personal with not even little but no experience due to pay compensation in this field. Most if not all training is way over their heads. KISS, baby steps, etc. biology and chemistry come later in school.
1	Chesapeake Bay Math, Records Management/Requirements, Duties of owners vs. duties of operators in Op Cert Regs
1	Just in general more courses to satisfy the required 30 hours within the 3 year renewal cycle. The amount of online courses should be a lot bigger since this is a REQUIREMENT to maintain a license. Not every plant operator has the ability to take a day off to go to an actual in person class.
1	troubleshooting level control problems/ more high tech courses for electrical components/ filamentous control/
1	free courses or credit for actual operation. the cost of this

	program to an non affiliated operators is out of line with current average salaries.
1	something about required manuals and paperwork (ERP, drought, operations manuals,etc) not each manual etc but a checklist of everything I should have and what the main (required) items should be in them. How about a course on using the massively confusing mess you call a website? Maybe a course for small systems with retiring personnel - expect lots of retirees in the next 2-7 years.
1	Having no idea what we miss most often on the test would make available taht material that is most often missed.
1	More technology specific courses and also more hands-on type courses for such things as pumps, motors, sampling and troubleshooting.
1	lab analysis, oxidation ditch operation, pump stations, VFDs and motors, record keeping and reporting requirements,
1	Repairs and Maint. of a Water System, not BS safety and security classes that do NOT help with day to day operation of a water system.

**13. I prefer the following types of training courses (check all that apply):**

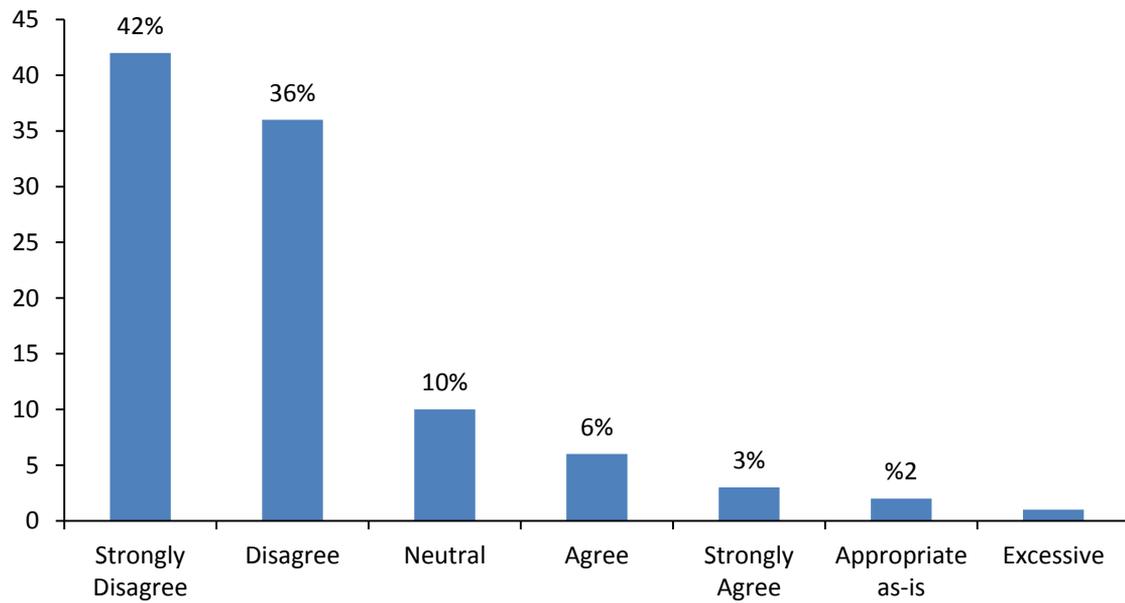


Value	Percent	Count
One-day classroom	81.6%	388
Multi-day classroom courses	19.0%	90
Web-based	47.2%	225
Conference-based courses	29.0%	138
Other	5.1%	24
Total		475

Responses "Other"	Count
Left Blank	472
Book	1
Book work/ online	1

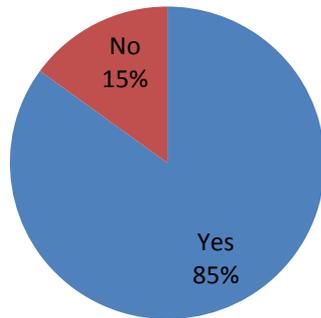
Correspondance	1
Hands on at a treatment facility	1
In field training	1
In the field - Hands On	1
Mail	1
Sacramenta	1
Workbook	1
Workbooks	1
corispondence	1
correspondence	2
distance	1
evening courses would be nice now and then.	1
hands on not just presentation	1
hands on training and demonstrations	1
on site	1
paper/book based	1
site visits and hands on training	1

**14. Only courses directly related to treatment plant operation should count for continuing education (i.e. no safety courses):**



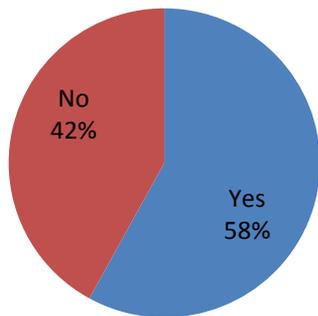
Value	Percent	Count
Strongly Disagree	41.9%	200
Disagree	35.9%	171
Neutral	10.5%	50
Agree	6.1%	29
Strongly Agree	3.1%	15
Appropriate as-is	1.9%	9
Excessive	0.6%	3
Total		477

**15. I have contact information for my local DEP field office.**



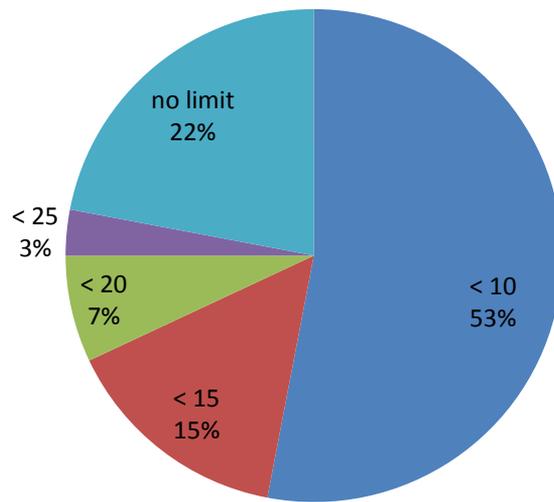
Value	Percent	Count
Yes	85.0%	403
No	15.0%	71
Total		474

**16. I have read the Chapter 302 Regulations.**



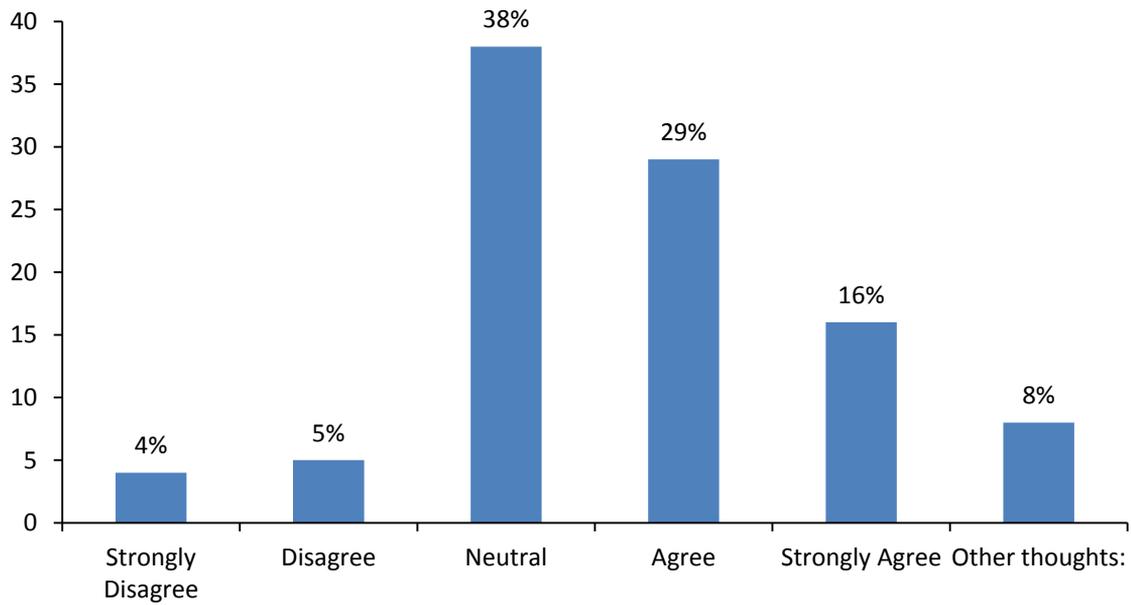
Value	Percent	Count
Yes	58.3%	273
No	41.7%	195
Total		468

17. In your opinion, considering travel time and complexity of water and wastewater facilities, a circuit rider should be limited in the number of facilities they operate to:



Value	Percent	Count
< 10	52.6%	236
< 15	15.1%	68
< 20	7.1%	32
< 25	3.1%	14
no limit	22.1%	99
Total		449

## 18. My DEP inspector is knowledgeable of the Operator Certification Program requirements.



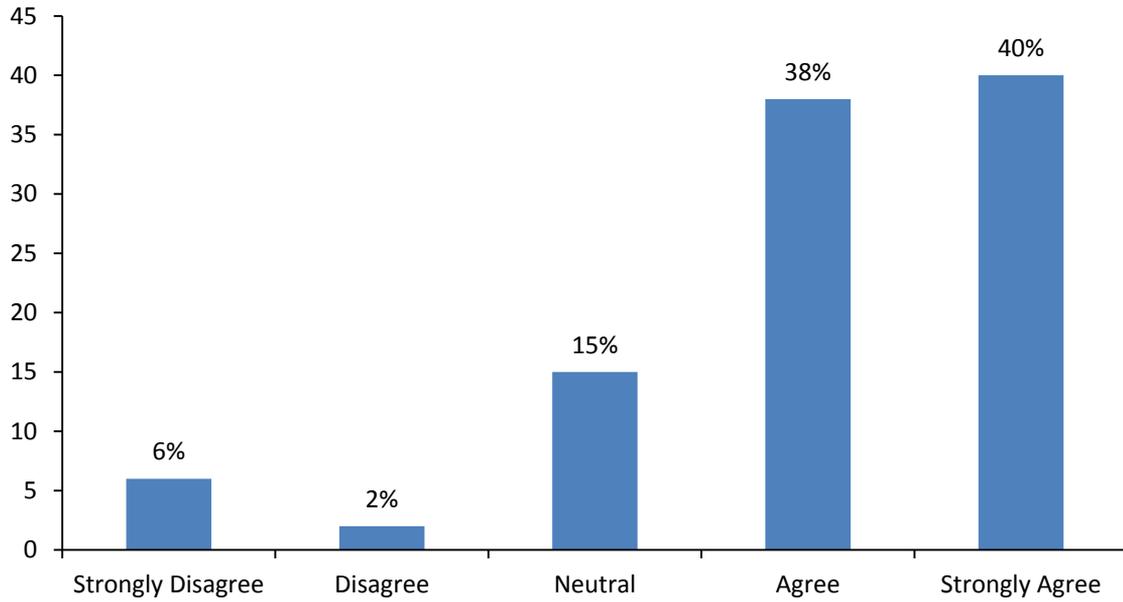
Value	Percent	Count
Strongly Disagree	3.7%	17
Disagree	5.2%	24
Neutral	37.6%	174
Agree	29.4%	136
Strongly Agree	16.2%	75
Other thoughts:	8.0%	37
Total		463

Responses "Other thoughts:"	Count
Left Blank	457
never talked to him/her about them	1

Because i'm in training i haven't met her yet	1
County health dept/ no	1
Don't know	2
Don't know inspector	1
Dont know	1
Erick Ammon is the BEST!	1
Have not met my new inspector	1
He is brand new to the field.	1
He just checks that we employ certified operators. No other conversations have occurred.	1
I don't know, never asked	1
I dont know	1
I haven't discussed this topic with my inspector.	1
N/A	1
NOT SURE	1
Never met one	1
Never really asked	1
Never talked with him about Operator certification	1
No opinion - I have not asked him a question.	1
are they certified operators ? ? ?	1
don't have contact with inspector	1
have a new inspector ive never met	1
have not met a inspector	1

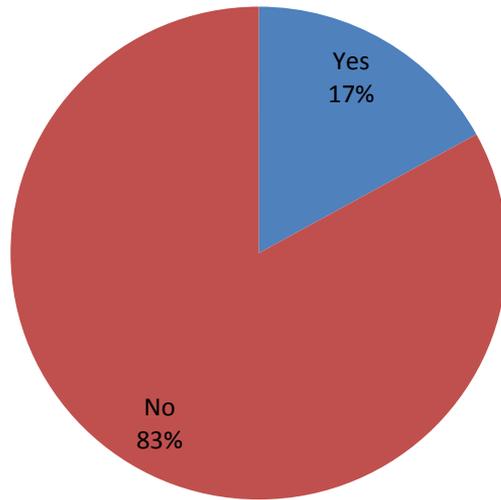
na	1
never asked	1
never really asked him	1
not sure	1
turn over is a problme	1
unknown	1
unsure	1
we currently do not have a sanitarian, and are not likely to get one soon.	1
DEP inspectors should be required to hold water/waste water certificates and actually have experience in those fields to be effective!!	1
PADEP WW Inspectors are much too hard handed with operators. Operators regularly fudge data and/or samples to avoid the harsh penalties.	1
ANY inspector or sanitarian should have atleast the same Certs. for the plant they are "inspecting". Otherwise their opinions mean little.	1

**19. I am responsible for the accuracy of data reported to DEP.**



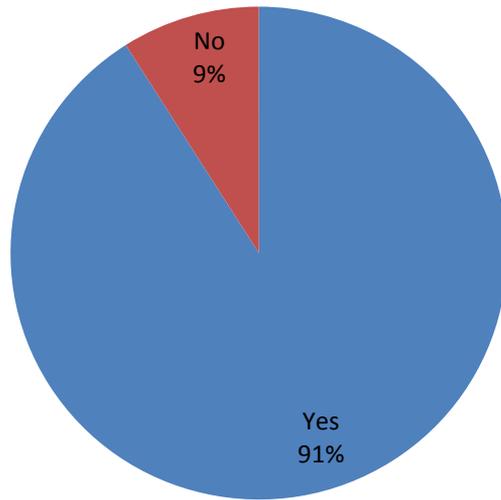
Value	Percent	Count
Strongly Disagree	5.7%	27
Disagree	2.1%	10
Neutral	14.7%	69
Agree	37.6%	177
Strongly Agree	39.9%	188
Total		471

20. Are you currently a system owner? Responding with "Yes" will open owner-specific questions after you click "Next"?



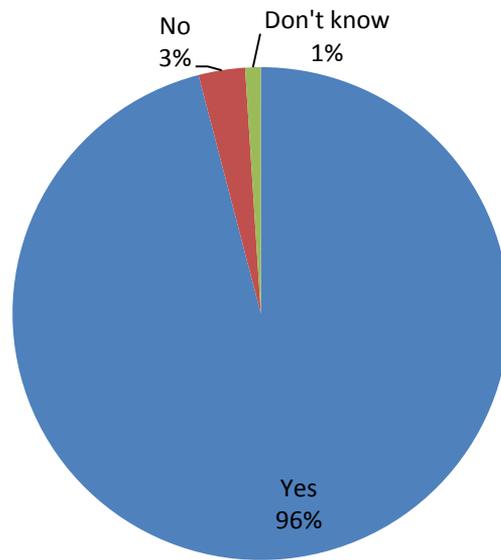
Value	Percent	Count
Yes	17.0%	80
No	83.0%	390
Total		470

21. I have provided (or posted) copies of my permits to my operators.



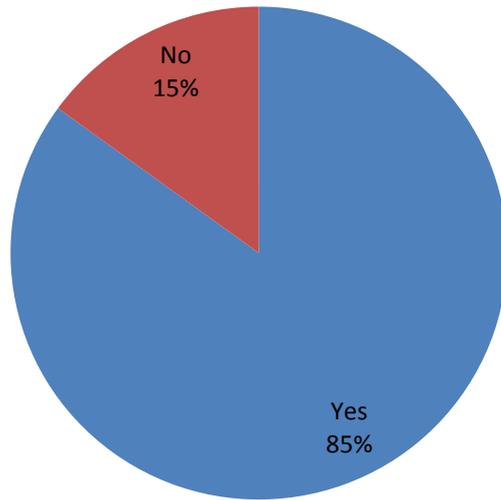
Value	Percent	Count
Yes	90.9%	80
No	9.1%	8
At some, but not at all of the systems I own	0.0%	0
Total		88

## 22. I have identified an available operator.



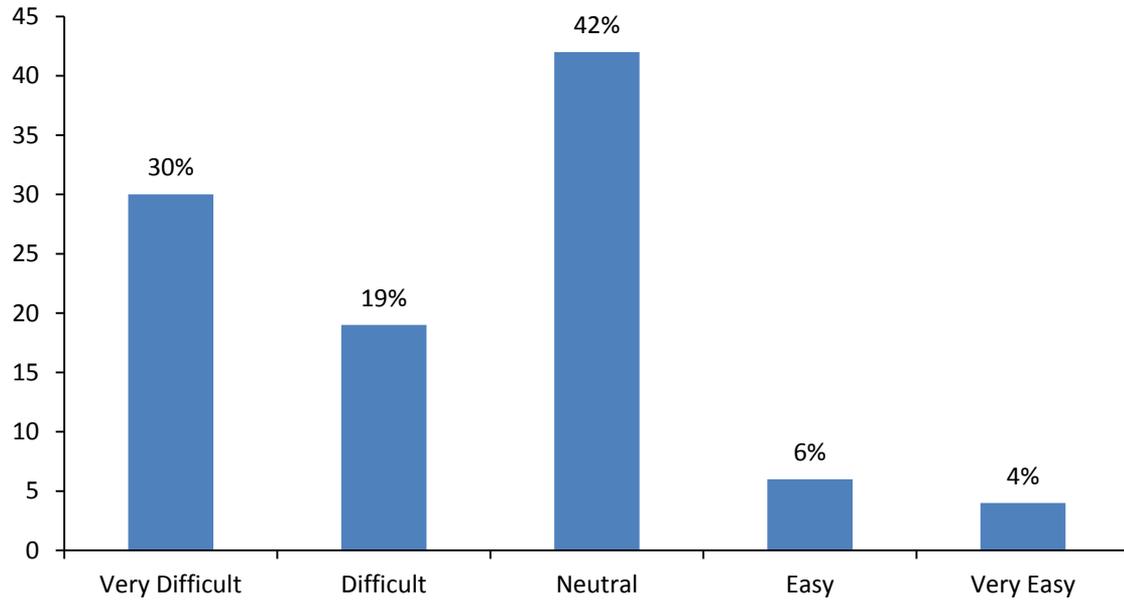
Value	Percent	Count
Yes	95.4%	83
No	3.5%	3
At some, but not at all of the systems I own	0.0%	0
Don't know	1.2%	1
Total		87

23. At my facility, I have posted the names of all available operators and contact information.



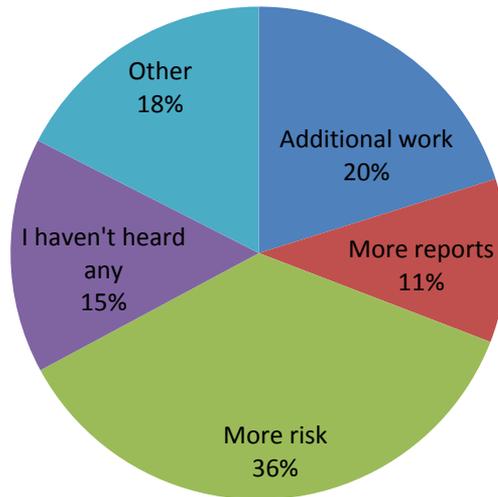
Value	Percent	Count
Yes	84.7%	72
No	15.3%	13
At some, but not at all of the systems I own	0.0%	0
Total		85

**24. Please rate your difficulty in finding properly certified operators to run your system:**



Value	Percent	Count
Very Difficult	29.8%	25
Difficult	19.1%	16
Neutral	41.7%	35
Easy	6.0%	5
Very Easy	3.6%	3
Total		84

25. What reasons, if any, have you heard for operators not wanting to become certified?

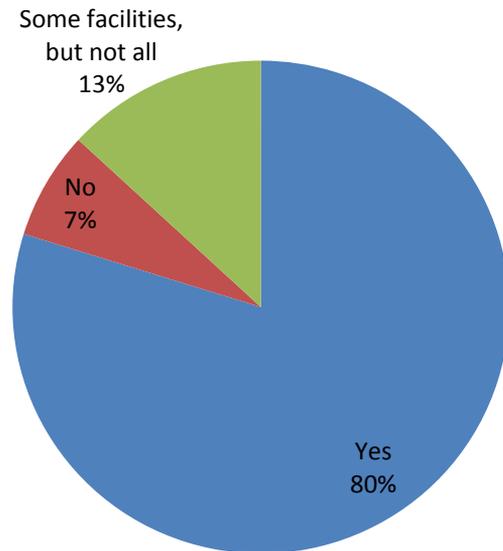


Value	Percent	Count
Additional work	30.0%	24
More reports	16.3%	13
More risk	53.8%	43
I haven't heard any	22.5%	18
Other	26.3%	21
Total		80

Responses "Other"	Count
Left Blank	471

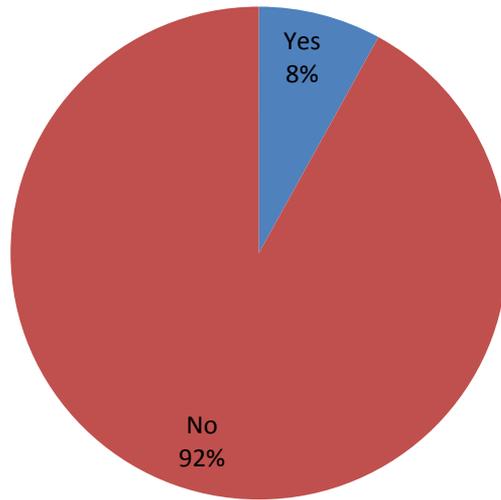
COST prohibitive	1
Difficulty of test.	1
Don't want to take tests	1
Fear of failing the exam.	1
Fear of making mistake and being penalized	1
Fear of testing	1
More responsibility	1
No economic incentive	1
No pay benefit	1
Systems way too small to need certified operator	1
Test is VERY difficult to pass	1
Test requirements	1
Testing difficulties	1
concern about passing exam	1
fear of failing the exam	1
intimidated by math (out of school for so long)	1
no pay increase	1
not being able to pass the test	1
test are hard	1
they are "not good at taking tests"	1
Because they don't want to deal with the DEP and the PUC "paper pushing", we are beyond heavily regulated.	1

**26. Does your facility have written Standard Operating Procedures (SOPs) that are reviewed and updated regularly?**



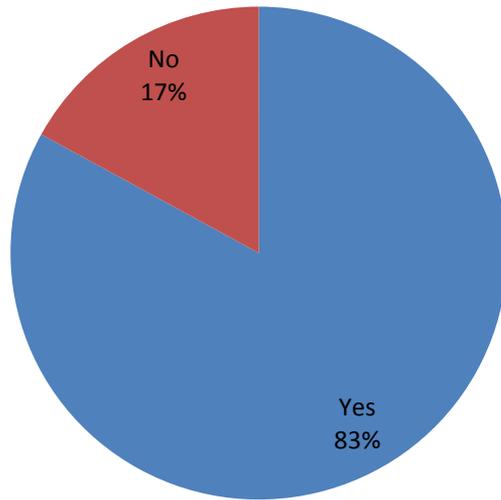
Value	Percent	Count
Yes	79.3%	65
No	7.3%	6
Some facilities, but not all	13.4%	11
Total		82

27. I use a circuit rider as my operator at one or more of the systems I own:



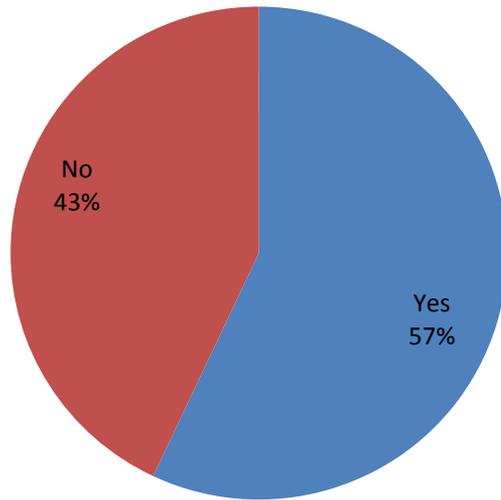
Value	Percent	Count
Yes	8.3%	7
No	91.7%	77
Total		84

28. I have a signed and current copy of my circuit rider's workplan:



Value	Percent	Count
Yes	83.3%	5
No	16.7%	1
For some, but not for all systems at which I use a circuit rider	0.0%	0
Total		6

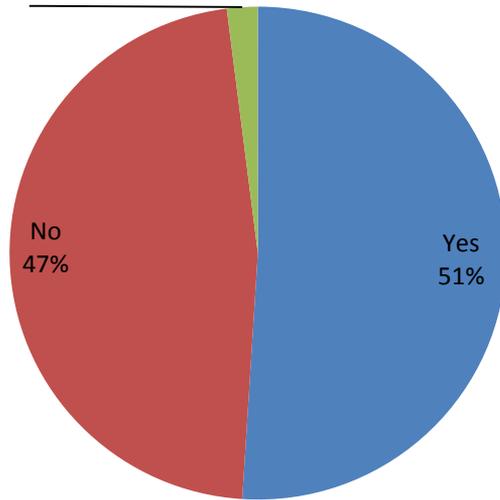
**29. I have a current copy of my System Specific Management Plan.**



Value	Percent	Count
Yes	57.1%	4
No	42.9%	3
For some, but not all of my systems run by circuit riders	0.0%	0
Total		7

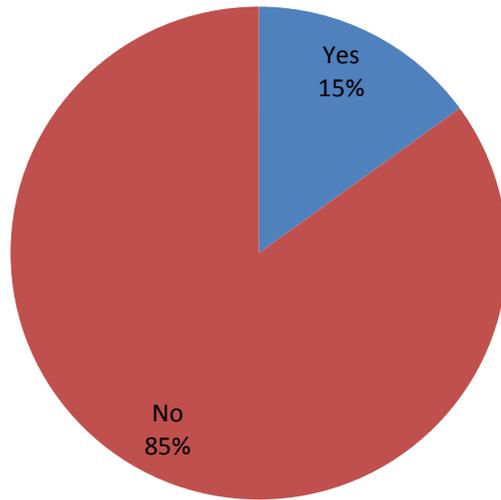
**30. My operator has submitted written reports to me of known violations or conditions that may cause a violation.**

If no, I have discovered violations or conditions that may cause a violation that my operator should have reported to me....



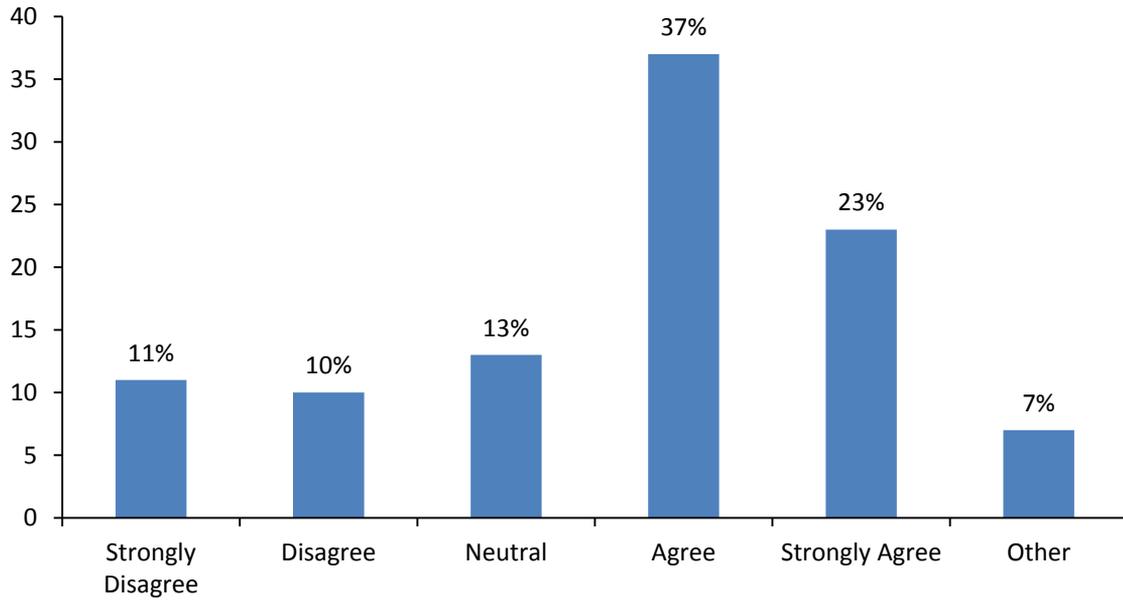
Value	Percent	Count
Yes	50.6%	42
No	47.0%	39
If no, I have discovered violations or conditions that may cause a violation that my operator should have reported to me.	2.4%	2
Total		83

31. I have discovered violations or conditions that may cause a violation that my operator should have reported to me.



Value	Percent	Count
Yes	15.4%	6
No	84.6%	33
Total		39

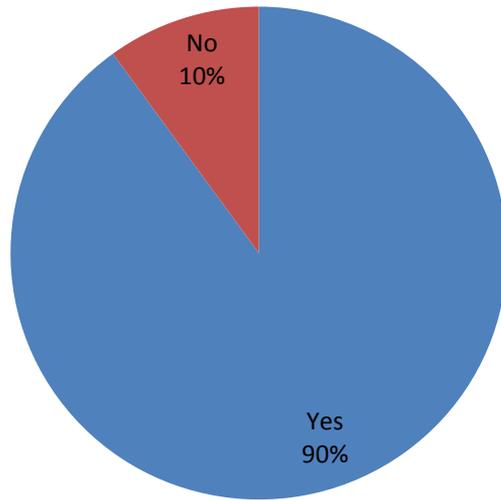
**32. Falsification of data by either the owner or an operator should result in a civil penalty against the facility.**



Value	Percent	Count
Strongly Disagree	10.7%	9
Disagree	9.5%	8
Neutral	13.1%	11
Agree	36.9%	31
Strongly Agree	22.6%	19
Other	7.1%	6
Total		84

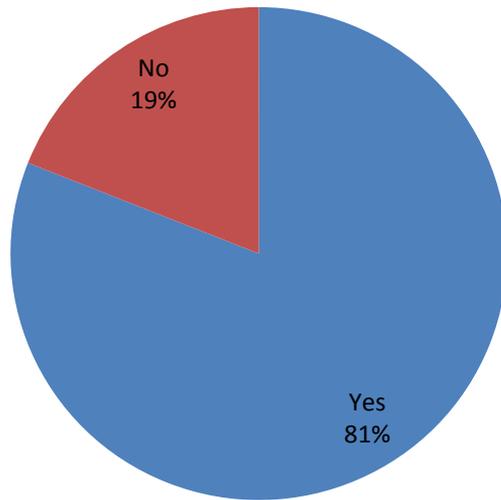
Responses "Other"	Count
Left Blank	486
Falsification by owner yes/ buy operator no	1
I hired an operator, if they falsify its on them, not me	1
If this was intentional	1
dependent on the violation	1
just the person, not facility most owners dont oversee the day to day operations	1
Yeah, just what we need more BS laws from the regulatory community, you all should try to enforce the laws you have now and stop wasting time making more laws.	1

33. As a system owner, are you also an operator? Responding with "Yes" will open operator-specific questions.



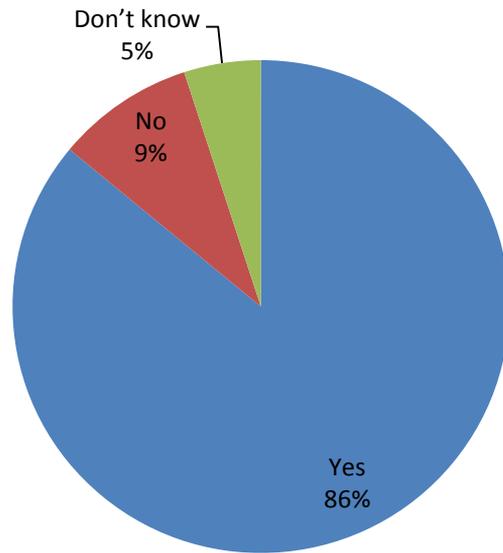
Value	Percent	Count
Yes	90.1%	73
No	9.9%	8
Total		81

**34. Are you a system operator? (This includes certified operators or those working under the direction of a certified operator). Clicking "Yes" will open operator-specific questions.**



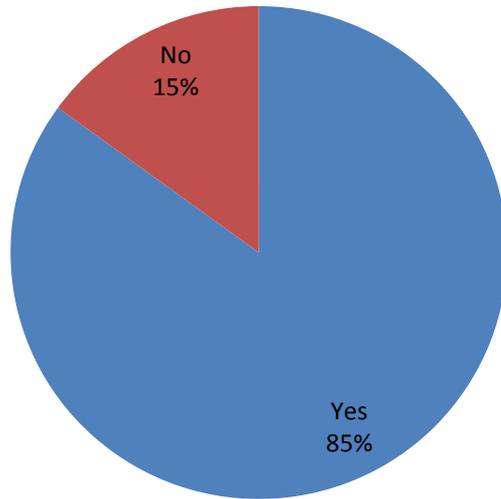
Value	Percent	Count
Yes	80.8%	375
No	19.2%	89
Total		464

### 35. I am identified as an available operator.



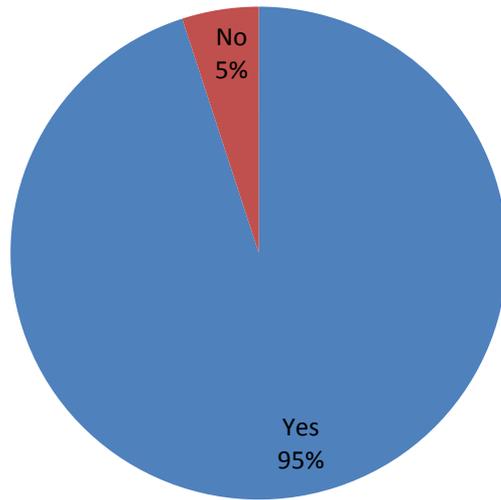
Value	Percent	Count
Yes	85.6%	326
No	9.5%	36
Don't know	5.0%	19
Total		381

### 36. I follow written SOPs for process control decisions.



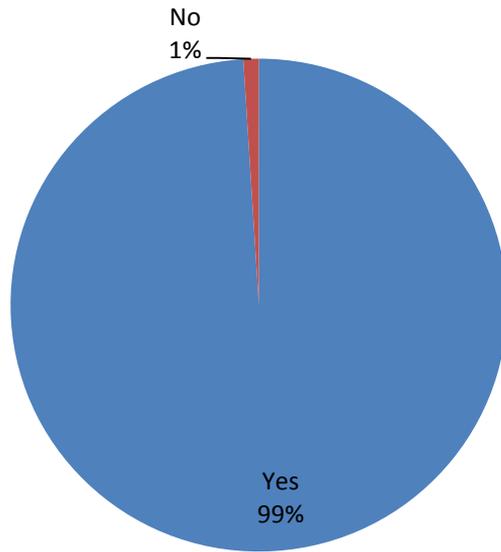
Value	Percent	Count
Yes	84.9%	28
No	15.2%	5
Don't know	0.0%	0
Total		33

37. I have read the permits and understand the permit conditions for the water and wastewater facilities I operate.



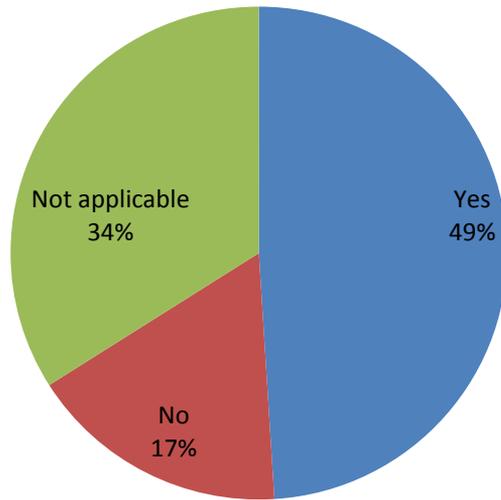
Value	Percent	Count
Yes	94.7%	356
No	5.3%	20
Total		376

38. I know who the available operators are at the facilities at which I am employed.



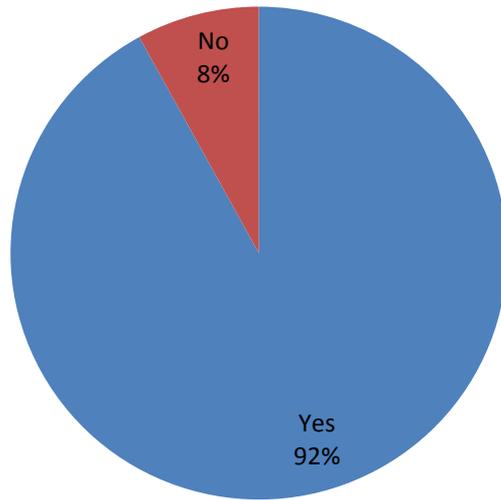
Value	Percent	Count
Yes	98.7%	371
No	1.3%	5
Total		376

39. I have reported in writing known violations or conditions that may cause a violation to the system owner.



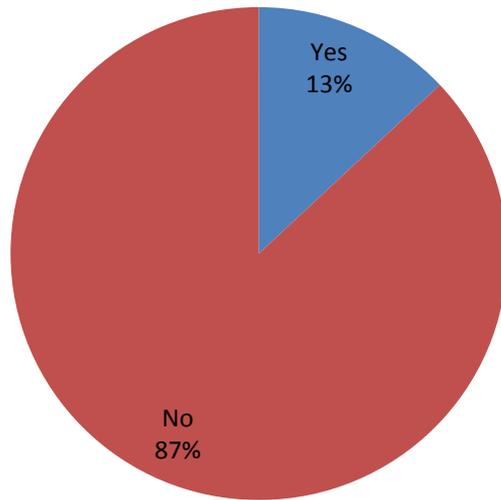
Value	Percent	Count
Yes	49.5%	185
No	16.8%	63
Not applicable	33.7%	126
Total		374

40. The owner has taken corrective actions to resolve the problem.



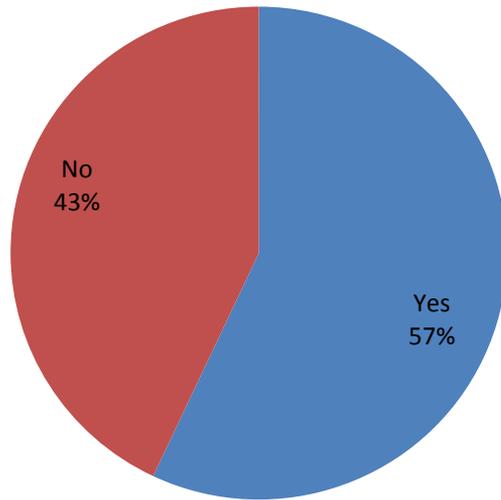
Value	Percent	Count
Yes	92.4%	169
No	7.7%	14
Total		183

41. I am a Circuit Rider (Note: A circuit rider is an operator that makes process control decisions at more than one system of different ownership)



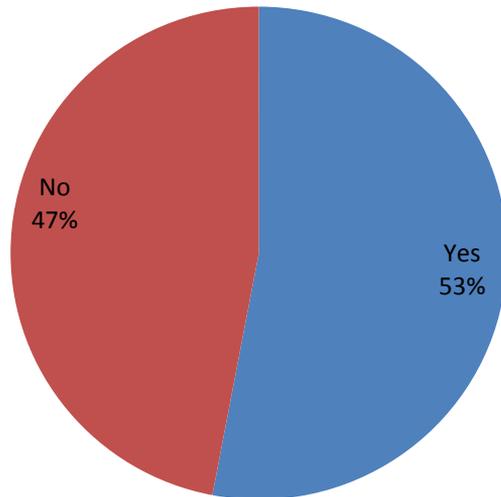
Value	Percent	Count
Yes	13.4%	50
No	86.6%	324
Total		374

42. I have provided a current copy of my Work Plan to all my clients.



Value	Percent	Count
Yes	57.1%	28
No	42.9%	21
Total		49

43. I have provided a System Specific Management Plan to each client.

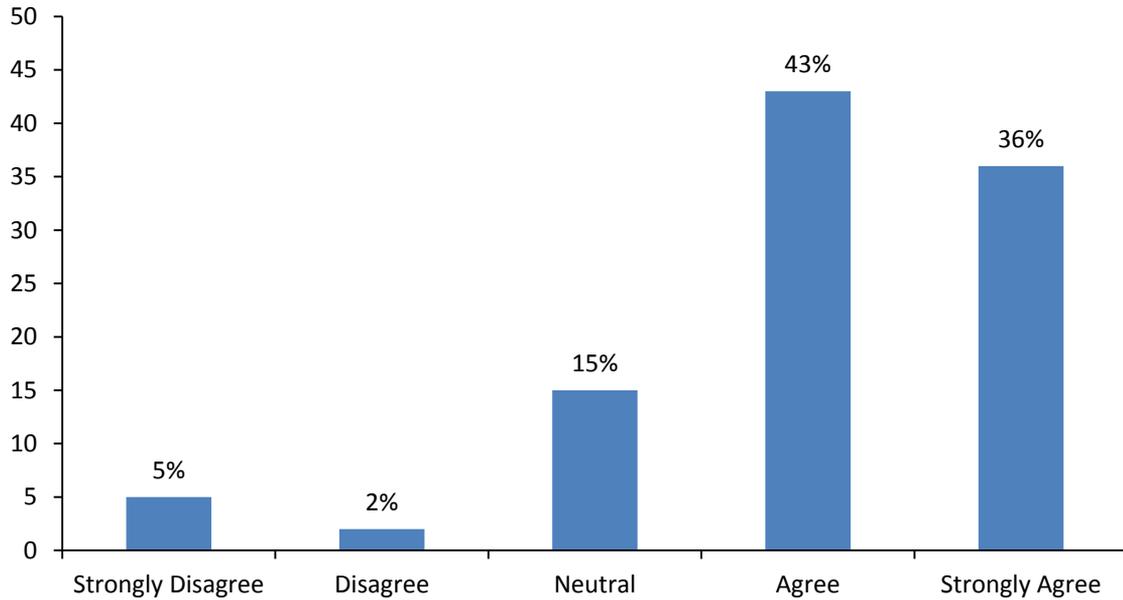


Value	Percent	Count
Yes	53.1%	26
No	46.9%	23
Total		49

**44. As a circuit rider, I am the available operator for the following number of systems:**

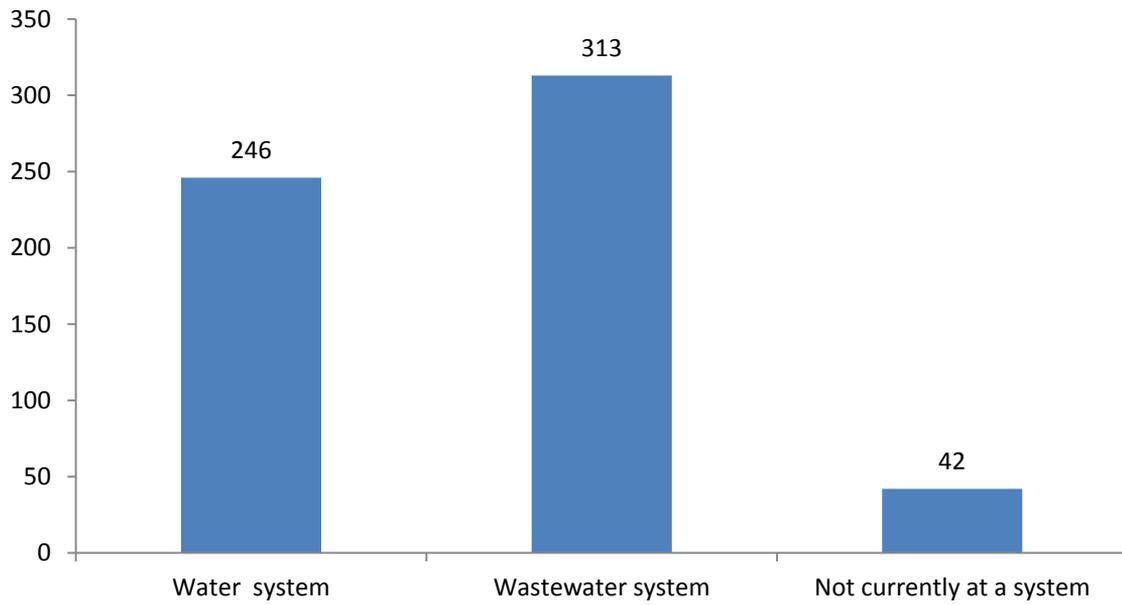
Count	Response
1	0
5	1
1	10
1	10+
1	14
1	15
11	2
1	23
4	3
1	3-4
1	33
2	4
1	40
2	5
1	50
2	6
1	60
3	7
4	9

**45. Falsifying data should result in suspension or revocation of my water/wastewater license.**



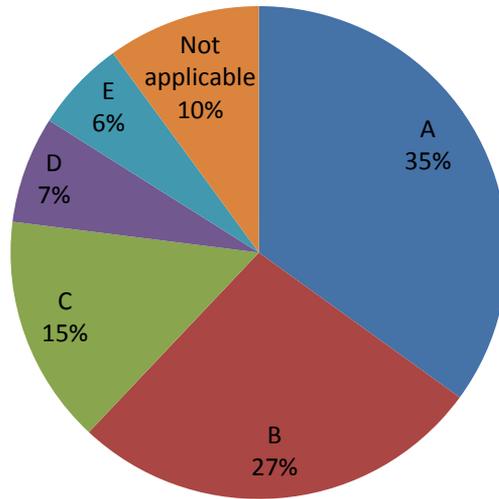
Value	Percent	Count
Strongly Disagree	4.8%	18
Disagree	1.6%	6
Neutral	14.6%	55
Agree	43.4%	163
Strongly Agree	35.6%	134
Total		376

**46. My system is a (check all that apply):**



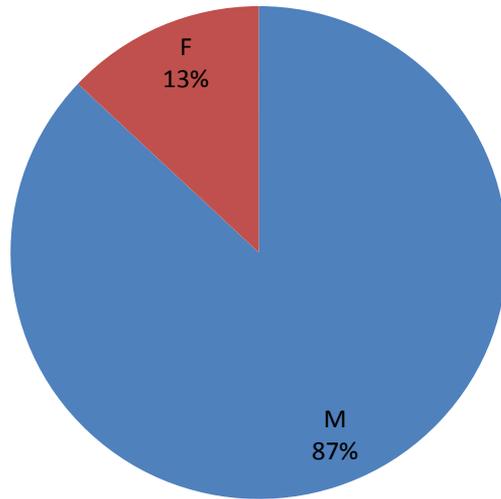
Value	Percent	Count
Water system	51.7%	246
Wastewater system	66.3%	313
Not currently at a system	8.9%	42
Total		474

#### 47. My system class size is:



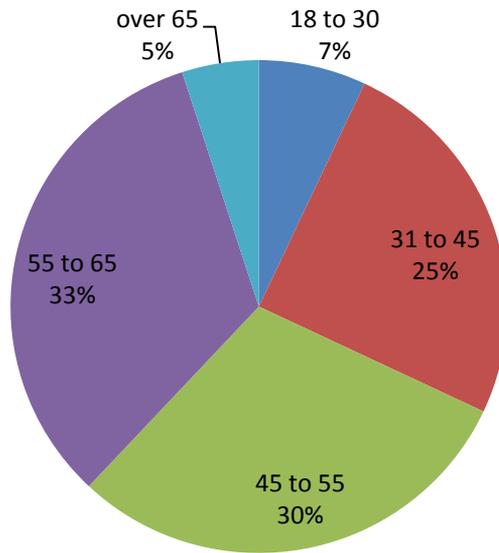
Value	Percent	Count
A	35.5%	166
B	26.5%	124
C	15.2%	71
D	7.3%	34
E	5.8%	27
Not applicable	9.8%	46
Total		468

## 48. Sex:



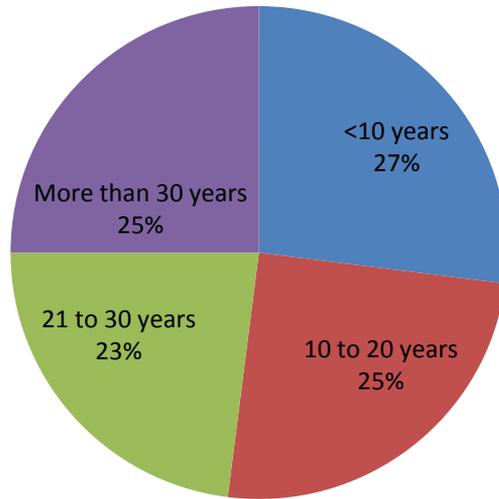
Value	Percent	Count
M	87.2%	394
F	12.8%	58
Total		452

## 49. Age:



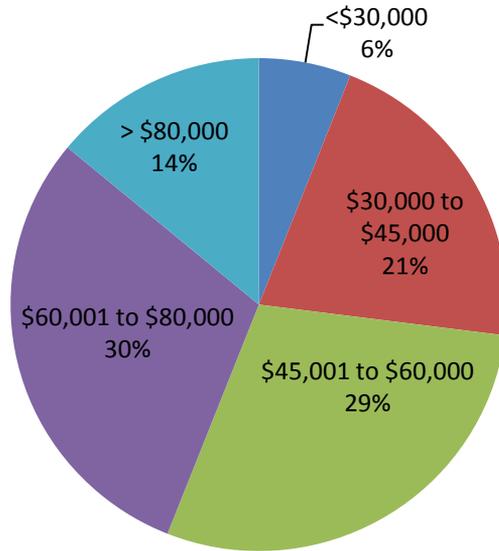
Value	Percent	Count
18 to 30	7.0%	32
31 to 45	24.8%	113
45 to 55	30.3%	138
55 to 65	32.8%	149
over 65	5.1%	23
Total		455

## 50. Number of years in the industry:



Value	Percent	Count
<10 years	27.0%	124
10 to 20 years	24.6%	113
21 to 30 years	23.3%	107
More than 30 years	25.2%	116
Total		460

## 51. Approximate annual salary:



Value	Percent	Count
<\$30,000	6.0%	26
\$30,000 to \$45,000	20.9%	91
\$45,001 to \$60,000	28.9%	126
\$60,001 to \$80,000	30.1%	131
> \$80,000	14.2%	62
Total		436

## 52. Do you have any other thoughts about the Operator Certification Program?

Count	Response
1	?
1	A phone number.
1	Better materials are needed to help know exactly what to study for each test.
1	Credit should be given to web-based training programs given by WEF.
1	DEP needs to enforce their regulations.
1	Definite improvement from previous program.
1	Exams need to be offered more frequently.
1	Experience should be factored into the # of continuing ed. hours required for recertification.
1	Glad more classes are being offered in Allentown vicinity. Thank you.
1	Great program so far. Just started the process and exams for acquiring my Operator's License.
1	Have credit hours that you can carry over. The Sewage Enforcement Officer program does this.
1	I can't pass it.
1	I don't believe the training material on the dep website is prudent to real plant operations
1	I need a chance to get more contact hours for less money than

	what is offering lately
1	I think it has significantly improved in the past two years with more exams being offered.
1	I think offering more online exams would improve the testing process.
1	I think there are to many people taking exam that fails.
1	I think this is a very good
1	It is somewhat complicated for some to understand. simpler may be better.
1	It was very informative
1	It's a money racket.
1	Keep up the good work
1	Keep up the good work.
1	Make it operations based, reduce management & math.
1	Make them easier and more system based or test you on the system you are employed at thank you
1	More classes taught by Jen Fields in preparation towards certificate testing.
1	More classroom training
1	More tests available by computer at more sites.
1	More tests sites. Make it possible to take test online from an approved Procter.
1	NO
1	NOPE

1	Need to offer exam sites in other counties
1	Need to provide more assistance with becoming a certified operator.
3	No
1	No.
1	None
2	None at this time.
1	Nope, in my opinion it seems to work fine
1	Not enough local classes and test sites.
1	Not enough tests available, too hard to get certified
1	Over years training repeats
1	Prefer taking the written operator exam and having a chance to take op cert exam prep workshops.
1	Reciprocity should be considered in regard to the PA program
1	Scoring needs to be based on Individual plants needs
1	Should be harder
1	Should have more testing dates.
1	Some times the way things are worded, makes the question even harder.
1	Study guides need to focus more on the testing .
1	Sure is alot of paper work.
1	Thanks to DEP for conducting this survey.
1	The Cert Staff and Training Section does a great job

1	The Jen Fields study groups were a great help in test prep.
1	There needs to be more testing sights and testing dates in a year.
1	There should be more exams available for operators throughout the state.
1	There should be more practice tests available online.
1	Too many Questions not relevant to operating plant. Look at why so many people have to retest .
1	Too much continuing education is required.
1	When can I start
1	Work needs to be done to encourage younger people to become operators.
1	Yes
1	Yes I think they should show what was wrong on the test so we know what we need to work on
1	Yes they should be made available via the Web
1	certification process too restrictive on courses
1	keep it reasonable and accountable.
1	more exam dates are needed.
1	n/a
1	need more certification programs
3	no
1	operators should be granted subclass after so many years of exsperiance without testing
1	should be able to take any of the necessary exams online.

1	Should a water system keep an operator that is not able to pass the certifications that are needed to run their system?
1	I think that when they changed the Certification Testing System a while back they never considered the Operators already Licensed. They took and made the Operators who had C License into A License. This was a slap in the face of the Operators who had A License and worked very hard to get them. Both Water and Wastewater.
1	DEP's Op Cert program is an out-of-this-world exceptional service to operators, systems, and the public. Thank you, thank you, thank you!!!
1	I have written letters to DEP about certain topics involved with this program, and have received what I consider boiler plate answers. I have always had a good working relationship with DEP. I am up front with them. I let DEP know when the treatment plant is not operating properly, but still within permit limits. The last time I did this my "Water Quality Specialist" told me that if you violate your permit , "I will send you an NOV." I have a very difficult time with this type of answer. Especially since we have not had a permit violation in over 10 years. Welcome to the new DEP. One last thing; if DEP is going to inspect us they better send out inspectors who know how a WWTP works, not me explaining this to them. DEP needs to look long at hard at themselves. No one wants to do these job because of the personal liability DEP has placed on operators. NOVs being sent to operators personal home addresses are really pushing legal boundaries.
1	As far as the Operator Certification Program is concerned, I think if someone forgets to renew their license that the DEP should make several efforts to notify that person before revoking their license. As far as water testing goes, I understand that testing is in place to protect the public, however I think there has to be

	<p>some point where you have to stop adding tests. It seems as though the DEP operates from a paranoid standpoint as to the way they view water testing. Just because they find a pollutant in an area, why should people outside the area have to test for it and if we have to test for it, it should only be one time. Also, the CCR report needs work. The forms are not very clear and neither are the instructions. If the DEP cannot make the instructions more clear, an online class or tutorial should be offered.</p>
1	<p>More online courses that operators can take at their leisure or in a group setting to limit travel is desirable. A single clearing house for courses is desirable.</p>
1	<p>When potential operators take the exam, the questions that were incorrectly answered should be sent back to them with the correct answers (including any details for the correct answer). This may help those individuals that failed the exam to concentrate on specific topics to study in effort to pass the exam the next time.</p>
1	<p>Too many subclasses. These subclasses devalue the actual license and make it more of a site specific license.</p>
1	<p>I think there should be a meet and greet in localized places to become familiar with our DEP reps and those who are on the Board. I also think that some of the testing is too broad because not all plants run the same and some questions are rather up in the air on a true correct answer.</p>
1	<p>Require DEP Water Quality Specialist / Inspectors earn an Operators license, including hands on experience at a facility.</p>
1	<p>You have to make more testing sites available so operators can take exams. I have seen some improvement over the years but still not enough.</p>
1	<p>All testing for certificates and or sub classes should be all computerized and available at any DEP office and available at</p>

	<p>call and scheduled notice or at state drivers licensing centers.</p> <p>The current classroom, proctoring and cattle call while using scantron sheets is 60-70's technology and exponentially inefficient! Additionally when you exam the pass to fail ratio it demonstrates that studying materials and modules are terribly put together, this should be looked at yearly and changed yearly if necessary. Its my belief the exams are generally ok, its the study material and modules that do NOT relate to the exams!!!</p>
1	<p>While I do believe training and testing opportunities should be readily accessible for those wanting to earn a license, I am not in agreement with the DEP programs where personnel is sent into an area to conduct intensive training for a month followed by the exam. This spoon feeding method of getting a license is not only unfair to those who had to work hard and earn it, but, in my opinion, does not result in the most qualified operators.</p>
1	<p>DEP Should implement an in House /Field training - to each Facilities and operators for any changes of procedures and regulations of the state requires or any issues or topic need to be updated ,implemented &amp; verified in a suitable advance training to all Plant operators including safety enhancement program.</p>
1	<p>a larger variety in testing sites, and continued education sites, and more chances to take a test in a year.</p>
1	<p>I believe DEP is missing out on a great opportunity to provide better continuing education and training by not allowing college level courses (chemistry, biology, physical science, math, etc) as well as technical, trade school and certain adult education classes to be used. I find that most of the continuing education classes currently being offered are simplistic and repetitive, and quite frankly, a waste of time and money. If the DEP wants to require quality continuing education, and they should, then expand what courses are allowed.</p>

1	Exams have been difficult to get into - Offer more frequently or more capacity; Some operators have tried several times and struggle with the math. Offer a short series of evening classes, a Saturday class (or even a weekday) that is tailored to passing the exam. We need more licensed operators in PA to replace those who are reaching retirement age.
1	The operator certification program should be standardized with those of other states to allow better reciprocity.
1	Waste of time going to classes because no body is there to learn its just for contact hours.I just think its just a way to fund the dep
1	STOP dumbing down the certification exam, We need people who know what they are doing not just folks who barely squeak by..
1	I enjoy my job, this field and the opportunities it has to offer. I recently obtained my license and I am super happy to be certified.
1	we are an aging field and more info needs to be put out to the public that this is a good field to work in and an important vital field.
1	As a professional certification system, it should be governed by a board of professionals not a regulatory agency. Other professions, Engineers, doctors, Lawyers are this way.
1	a operator with dual operater license should have the same three year cycle and hold one license for both.
1	I think the exams are to easy I think each level A,B,C should be their own exam and not just pass / fail and related to plant grade
1	Class size should be accommodated for who ever signs up. More locations on the Eastern part of the state. SAC was useless for prep of general exam.
1	I don't know where to begin. I have had a WW license for a few

	<p>years, although I have been consulting as a chemist/biochemist for almost 20.....I thought that the regulation stated that an operator could operate a plant as long as they received certification within 2 years - I was slammed because I operated without the proper certification and I will probably have my license revoked!!!! PADEP and Mr. Musinski are not easy to work with and are bent on punishment as opposed to helping people. No wonder why the operators I work with fudge data!</p>
1	<p>Offer a online test, or go to the plants see how the operator's work. Taking a test on question that how nothing to do with the plant I work at makes no sence. I never been good at taking test but work well in the field. Go back to the grandfathered after so many years in working in the service.</p>
1	<p>There needs to be some corrections to how this system operates. My biggest pet-peeve is when a class is taught by a sales rep who is with a company, it is unethical. Prospective operators also need modules that are available to be used as "official" study guides instead of spending money for classes they cannot afford. Time spent of the job could also be used as a certification pathway being that not all operators are exposed to the whole plant and its functioning components.</p>
1	<p>Overall, I would give the program a B+. There is always room for improvement, but once you understand what information is important and where to find it, it is a smooth process. Getting familiar with how it all works can be overwhelming and frustrating, but I am pleased to be done with the initial licensing process. I worry sometimes there are regulations I somehow don't know about that will someday present a problem, but I can say with sincerity that I believe I am doing everything I know to do to stay within regulations.</p>
1	<p>I feel that ALL DEP personal that work in the fields should have a</p>

	<p>License as to what they inspect. I would like to see more testing for certs, day time, and evening time courses. Some of us folks can not make these courses during the day time because we are the only Operators at these small systems.</p>
1	<p>Yes, it is my opinion that CEU's should be carried over to the next 3 year cycle if more than 30 hours have been obtained.</p> <p>Education should not be eliminated just because a 3 year cycle has elapsed.</p>
1	<p>I am an engineer and have let my certification expire. I do a lot of continuing education training but the training that is acceptable to DEP is so narrow and limited, it doesn't fit with the more advanced work I do. Since I don't expect to operate a system in the future, it doesn't make sense for me to take courses like Basic math for Operators when I am working on more advanced topics.</p>
1	<p>Why is there still a general exam when you must take site specific exams anyway for where you work or are going to work?</p>
1	<p>Between the classes and license fees, the costs of maintaining my license while I look for full-time work is a hardship. I could get a job doing something else for the same hourly wage and benefits, and without the headaches and legal responsibilities. While I am committed to the field, I think this negatively impacts the number of younger folks who will stick with jobs as licensed operators.</p> <p>Also, as a circuit rider, my field supervisor provides all the required documents to the facility owners and they are also at each plant. I do not personally provide them!</p>
1	<p>It is getting really difficult to continue to get 30 credits and not having to repeat courses cycle after cycle.</p>
1	<p>You need to let people that take the exams know what they missed so they know their strengths and weaknesses. It is not cheap to hold on site courses. When multiple people fail after an</p>

	<p>on site course something is wrong and we all need to know what to study. What good is test that you can't see your answers that you missed?</p>
1	<p>w would like to see more classes geared towards each sub class, and classes geared toward rules and regulation to help keep up to date on them. ive passed all test that I have taken but would like to know what I have missed. hard to learn if you don't know what was wrong</p>
1	<p>The website is not very user friendly. Have the certification tests available on-line at an independent testing facility everyday. There is a need for better training material to study for the test. It would be nice if when you earn more than the 30 credit hours that there was a way that you could get some credit for those extra hours.</p>
1	<p>not enough classes. you end up taking the same classes every three years. its a joke. waste of time and money</p>
1	<p>I took my water certification tests back in the early 80's. I haven't taken the modular test of today, but I think the old way was better. I always thought that with the old way the operator had a general idea of different types of water treatment processes which I think makes it a more valuable certificate and better operator.</p>
1	<p>some of the online courses left a lot to be desired. Screen the tests a little better, they can be a joke.</p>
1	<p>There have been times that regulations come up that I was not made aware of and then had to scramble to put paperwork into play. A better "heads up" for us operators would be served from our regional DEP reps.</p>
1	<p>I think that owners, board members, etc. should have some type of formal training about the Operator Certification Program. Micro</p>

	managing can be a problem for the responsible operator in charge.
1	A water class A,B or C license should not be permitted to operate a distribution system unless they also obtain a class E. Many water treatment plant operators have no idea about proper field operations.
1	I think sometimes the test are harder than they have to be. on the job training is just as helpful. but a lot of the stuff on the test do not relate to the stuff that is being used in most places.
1	Jen Fields was the biggest help I had in getting the education and information needed to become an operator. Great lady, very bright, great instructor.
1	Industry vendors should be able to issue training certification hours for updates on products and demonstrations (waterloss, equipment, leak detection, safety, metering etc.). PRWA charges for classes escalated after the cert. program went into place - not necessary to be in hotels - local fire halls and VFW certainly should be cheaper and passed on the operator/payer. Classes/tests should be looked at not just regionally, but also by county - you should not always have to travel over an hour to get to a class or test. DEP should email that info is updated on website - should not have to go looking for it - impossible to find newsletter etc. searching for information on DEP website is horrible. Many operators are not computer comfortable - making it even more intimidating to want to use the site. I frequently get asked to do it for them instead. some of your questions are yes/no but the answers need qualification because the real world is not black and white. Operator want to do the best job possible, but often face unrealistic operational constraints that the regulators don't see or comprehend when setting regulations which do not truly impact the majority of the water system (or

	sewer) quality.
1	My organization is an approved training provider. After initial approval as training source, we couldn't generate enough business to run classes or initial certification programs. More support, marketing, direction to aspiring operators should be provided. Access to qualified instructors has been an issue as well. Could DEP provide a database of qualified instructors-retired operators make the best instructors-available.
1	I believe an operator who is involved in an upgrade at their system or a construction project in their distribution system should be able to receive credit for the Operator Certification Program. These projects consume a lot of time on the job site and takes away available time to take training classes. I also believe you learn a lot from these construction projects because they are more hands on then sitting in a classroom.
1	There needs to be a system specific type testing. Our plant can be learned how to be properly operated in less than a year. Plus that helps retain employees.
1	testing should be scored all the same, dont get me wrong i like the curve scores but ive passed the test with scores that people got their licenses and i dont get mine since the pass score is higher.
1	I believe DEP needs to take a look at their tests. IF there is such a need I truely believe the tests should not be as difficult and tricky. Where I do understand that not everyone deserves a passing grade a lot of these guys/gals are working full-time while studying for this exam.
1	For question #17, the number of systems a circuit rider can operate is hard to limit. It depends upon the types of systems they operate at. If the systems utilize either no treatment or less

	<p>complex treatments that do not require as much oversight and operation, then they have greater flexibility to manage more systems. Also, if the circuit rider is part of business that has several operators on staff (or uncertified operators working under SOPs), their resources would be different than a sole circuit rider who could be limited in how many systems they could manage at one time.</p>
1	<p>I have found that the study guides you have available are very informative if you already have an idea of what you are doing. For example the corrosion control test is very hard and other than your guide there is limited study info I have found. I have failed that test 2 times now by 1 point.</p>
1	<p>Would like to see you go back to a 100 question test. I think these subcategory exams are too easy.</p>
1	<p>Operators that have dual licensing should have their license renewals expire in the same year and month. I would give up renewal time on my sewer license to have it correspond to the expiration on my water license.</p>
1	<p>Less emphasis on the on multiply choice exam; this may show that a person can take a that type of test or spit back information. I don't believe that assessment of skills and knowledge is gained from the PA tests. The testing needs to be revised and should be more scenario based than definition and math problems. Or do a multi-choice regulations test the PennDOT then have an open book or skills training certification/practicum. Have an operator in-training program that would open up to new/younger group. Having education alone such as a 12-week certification classes isn't enough.</p>
1	<p>We have an aging operator base. We need to offer better and more courses to prepare new operators to take the test or we are going to be way short in certified operators!!</p>

1	The availability of the exam has got to be improved upon so that the wave of openings due to retiring operators can be more easily filled
1	At my last training there were no representatives to collect my completion paper so I can receive my credit hours
1	Training for water cert. Is plentiful and easy to find. Wastewater training is practically non existent, this needs to change.
1	I must say the changes made to the operator classifications some years ago only made my license less valuable! I was one of two operators that held a class A certification and earned it by testing from D to C to B to A over several years. The reclassification of all C and B converted to A made all operators at my facility equal to me by doing nothing! I believe it was the states way of filling the current and future void of certified operators. I worked hard over many years to step to an A license, and you hand out these class A licences to everyone below me in class. Old school operators refer to these as cracker jack box A licences. In closing I would like to thank you for putting a freeze on my salary while i watch coworkers get compensated for their achievement that you handed them. The attitude now from above is.....find a new job if you don't like it your not the only class A operator here.....
1	The number of continuing ed hours for recertification seems too high. For those who have been in the industry a number of years there seem only so many topics that can be covered. Might as well reduce the number of hours to 24 per 3-year cycle from 30
1	Yes,I believe if you presently hold a waterworks License,and are working in the water industry for over 30 years,why do i need continuing education?I have to spend my money to keep this License,and believe me these courses are not cheap.I think the people that hold these Licenses and do not work at a water or wastewater plant should be the ones going for continuing

	education.
1	Water and wastewater unit process fundamentals are similar. Water courses should count as CEUs for wastewater licensure and vice versa.
1	I don't mind the topics that are offered. Seeing the same handouts every year gets old. The modules used in class are the same as the ones online. It would be nice to get different information. Some of the operators that present the classes just read word for word right out of the modules so it makes me feel like, I could have just read the module online to myself instead of attending a class. and walk away not learning anything new. create newer and different questions for the modules to challenge the operator.
1	I have been an operator in PA for 20yrs I have renewed my license 6x 6 three yr cycles I have always been on time and have had all my hours needed for renewal . The plant I currently am in charge of ALWAYS has had a great reputation ,never any issues with inspections etc . Now I say all this because I most recently came up 1/2 hr short I had 29.5 hrs of the 30 needed . I was informed that I was in threat of LOOSING my license , I had to wait 1 month till the board met ,to review my extension renewal app. I was approved and all is good .. Although in my opinion as much as I understand you need to have strict rules in place this was a horrible experience for a 20yr operator with a clean record . Especially when op in PA are short . Life happens and these things happen . Im not sure exactly what the answer is BUT no other 50yr old operator should have to go thru that month wait as I did . I appreciate all of the help from the board of certification office especially Cheri Sansonis help I just think it could happen quicker and yes maybe differ from case to case giving credit to the longevity of a 20yr operator . Thanks for listening

1	Experienc with subclass technologies should be credited for both water, and wastewater certification.
1	Having a really hard time passing the WWWE4 exam. I have studied a lot and have taken this exam and have failed 3 times.
1	Remove mandatory work experience for licensure instead create a in-training license. This is easier for young people to find employment
1	I attended 6 week training classes for Water that was taught by a woman named Wendy Malehorn. Wendy was what I consider to be an expert in her field. She was very knowledgeable and thorough. I have highly recommended many individuals to take the 6 week training taught by Wendy. I wish DEP would consider having more training such as this, especially for Waste Water. I do not feel there is enough Waster Water training. Most training appears to be directed toward the Water industry. We definitely need more Waste Water training. I have heard of a woman by the name of Jennifer Fields who has been highly recommended to me, if I ever saw that she was teaching a class I should go but, I have never seen anything offered. I would absolutely go to training provided by Jennifer Fields and am acquainted with several Operators that have stated they would love to see training offered by Jennifer. Thank you.
1	I feel that "on-line" course materials should be expanded. In college and grad-school, I had the opportunity to take a few "Asynchronous" on-line courses....same material, no travel time involved. Email or Fax-based communications could be used for Q/A sessions, and testing materials.
1	I find it difficult to find classes that apply to smaller systems specifically and the classes I must attend to get my hours in are often not really applicable to the smaller systems I attend to

1	I believe that all safety training should have contact hours and we should be allowed to take the safety course more than once in a cycle. This change will allow for far more safe and knowledgeable employees.
1	I'm employed full time at a large plant and also part time for a tiny plant does this really make me a circuit rider? so some of the questions don't have a proper answer to check in this survey.
1	There need to be more computer based exams at closer places. There is no need to travel anywhere in todays society to take an exam like this. There are plenty of testing facilities throughout PA at which an exam like this could be given. If I want to take an exam that I'm already nervous about taking why should anyone have to drive an hour or more from their home and get frustrated when hitting traffic. You can only leave so early. Most exams are at 8am so if it takes you an hour to get there you want to leave 1.5 hours early so you don't hit traffic and than you know what you get to do??? You get to sit and wait for the exam to start. WHY??? If it's computer based there's no need to wait for everyone to show up. You have a 4 hour window and too bad if you show up late that would just give you less time to finish the exam.
1	I don't believe the Department should have abandoned training/testing and turned it over to the water/wastewater organizations or private entities. This privatization has led to areas where limited training and/or testing opportunities are afforded. Course approval by the Department needs to be streamlined. There should be license reciprocity with all other states.
1	i think all wastewater and water inspector should have to take and get their wastewater and water license
1	Maybe there could be a class on regs 302 or what was listed

	<p>earlier A class on the Cert. program itself and what is available to operators More safety Training</p>
1	<p>IT IS HARD TO HAVE ONE TRAINING FITS ALL. I strongly believe that any level operator should have a training period for the particular plants and processes they operate .All processes are different it takes time to understand your particular facility. when personnel move from plant to plant they should have a training period and then be given a test whether verbal or written to verify that they have a understanding of the facility.</p>
1	<p>My survey may not be a great indicator because although I have passed the general exam and one sub-class (activated sludge) I am still in the grace period of getting my 2 years experience in. Right now I am working at a fixed film plant, but in a few years we are changing to activated sludge. So I will have to wait another 2 years once the change happens to apply for certification. That is my only complaint about how the system works.</p>
1	<p>The exams are too broad. I'm required to study useless information that does not apply to me or my job. I think that the exams need to be revamped. When I studied I wasted time learning info that wasn't covered on the exam</p>
1	<p>I would like to see PADEP to continue to work with organizations such as PWEA and its west, central and eastern sections to strengthen the communication lines between the department and the organizations. as of late, DEP has been not involved in local and state organization activities. I think they can provide a forum to transmit information from operators to the department. I would hope that the current and future admirations could re-evaluate this relationship and hopefully strengthen the lines of communications</p>
1	<p>The cost of continuing education classes is out of control. Finding affordable classes is very difficult.</p>

1	A "Sanitarian" should be an Operator in Training, maybe not even that because they do NOT operate a water system and do NOT know how. They need to complete ALL available certifications for either Water or Wastewater. You people don't operate under the same rules you force us to, typical government operation.
1	Operators should be eligible to take all exams, and be able to add to there certifications, regardless hands on experience with a particular subclass. (ex. I don't physically operate a convential filtration facility, but would like to take the exam, and have it added to my cert. based on general experience in the treatment field, for the potential that I may operate one in the future)
1	The class courses are becoming less meaningful due to repetition of offered courses. The DEP does not do enough to offer a variety of courses. If it wasn't for the efforts of the PRWA obtaining credits would be difficult.
1	I am a trainer and prepare folks for certification exams. The wastewater general exam and water general exam have a tremendous amount of material to convey to the students. At times I feel we are overwhelming the students because we want to cover any material that is on the exam. I would like to access the tests or have sample tests from DEP that would guide me so I could guide the students. We also are an exam provider. Electronic testing is the way to go. If DEP could find more ways to increase the number of these tests it would benefit the operator certification program. Operators are for the most part much more comfortable with the electronic version and they get their results immediately. They also seem to have more flexibility and can take additional subclasses that same day. Although more exam seats seem to be available, for our exams they fill up very quickly. With the advent of more electronic exams this problem can be eliminated. Also some folks would not have to travel as far to take an exam. We work with the certification folks every day. Great

	group and they sincerely care about the operator.
1	Would the Department ever consider aligning the certificate expiration dates for dual certified operators (water & wastewater) so they renew at the same time. My certificates which I keep current even though I am not employed as an operator anymore, are about 1-1/2 years apart from each other. I still continue to take classes that are for both so I do not have to double up within the renewal year overlap.
1	I wish there were more opportunities to take tests, especially the computer based ones. Waiting for the results is frustrating and time consuming. The computer exam could cut down on test times as well. There aren't enough locations or varieties in times for exams either. It's hard for someone on night shift to get to a location that is far away
1	I took the program at RACC and found that the program prepared me extremely well not only for certification but the industry in general. All my instructors worked in the field and were extremely knowledgeable. I passed all 5 sections of the wastewater certification test in my first sitting and I attribute that solely to the great instructors I had.
1	need more computer based test locations and more frequent availability to take exams. the demographics show an aging operator population. we need more operators.
1	Being able to take an exam without registering months in advance, with limited seats would be helpful. Computerized testing such as those offered by the civil service commission would make sense.
1	I would like to see the expiration dates of licenses aligned for those of us with dual certification, instead of having to keep track of and renew separately. Thank you.

1	<p>The DEP needs to have a Study Guide of what and only what is on the test!!! This right now is a money maker for the DEP hoping men and women fail the exam so they can keep taking it and keep charging for the exam!!! If anything charge for a study pack that has everything on the exam!</p>
1	<p>Con ed classes, DEP renewal, costs are too high. Should be free after certified. Once certified, you should always be certified, only need to keep up with con ed. If not completed in cycle, then not allowed to operate until con ed is completed and current. Should not lose license and have to retest, plus all added costs, just catch up on con ed.</p>
1	<p>circuit rider question was too general. The effort required and available resources should dictate the number of plants one is responsible for.</p>
1	<p>PADEP doesn't regulate enough the management/owners of wastewater treatment plants. They regulate the operations but not the financial end or budget end of the operations. My municipality constantly transfers money from the sewer fund into street department or police departments to fund their operations. For years the sewer fund paid for operators wages for snow plowing on city streets. There is no money left in the sewer fund to pay for the items that the plant needs. PADEP was supposed to implement programs such as "Asset Management" and "CMOM" but you never did. Nobody wants to raise sewer rates to pay for the operations. PADEP needs to regulate local governments on how the money is spent at wastewater treatment plants. PADEP needs to be more involved in the budget process.</p>
1	<p>Implementation of Requirements for Circuit Riders to develop and/or provide General Work Plans and System Specific Management Plans are not consistent from Drinking Water to Wastewater, nor are they consistent for Region to Region.</p>

1	<p>I feel that the entire continuing education program is nothing but a money maker for the state. I have been at the same facility for the past 15 years with no intentions of leaving. I know my system and with no room for expansion, my system will remain the same until I retire. Why should I have to continue with these courses just to maintain my certification? With all of the available technology today, if I hear of some new process or equipment, I can do all of the research I need to. Why doesn't the state waive the continuing education for operators that have been in this field for 25 years or more? Or operators that have been employed at the same facility for an extended period of time? Just a few thoughts.</p>
1	<p>it has become too costly for the individual operator to pursue. NOW it requires the employer to push harder for certification. only 40% of employees pursue instead of 80% in past</p>
1	<p>There should be multiple ways to get the experience needed - specified hours at Plant, in management, in field, etc.</p>
1	<p>Currently only PA DEP Sponsors' training courses are accepted by PA DEP for reusing your licenses. There are numerous other training courses that DEP no longer accepts, i.e. college/university courses, manufacturer sponsored training, etc. Previously, DEP allow you to submit "post credit" for attending these courses by the submission of a form and documentation of the training, which should be re-implemented.</p>
1	<p>Two requests: 1st there needs to be allowances to carry over extra credits from one cycle to another. DEP's excuse is they can't account for it. SEO's a PADEP Program allows and accounts for it. 2nd it seems that obtaining credits is becoming a racket where one just goes to get credits and not necessarily to learn new helpful info. So perhaps 30 credits could be reduced to 15 or 20 / 3 year cycle. 3rd Credits obtained say in the Nutrient Management or SEO programs should be considered as partially</p>

	<p>acceptable for Operators. Nutrient Management and On Lot Treatment is the common thread and would give the Operator a better understanding of the big picture. Thanks for your consideration.</p>
1	<p>If a client has failed a test, DEP should provide client with "weaknesses are ...." so one can study harder on that item.</p>
1	<p>This profession needs to be made a federal employee position as public safety is a major concern and municipalities and private companies do not offer a high enough pay scale to entice any young talent to come in.</p>
1	<p>I have both a water and wastewater license. There is a 6 month difference between the renewal dates of each. Why can't the DEP come out with a new combined operators license so that all the renewals can be done at one time? It would save time and money.</p>
1	<p>1. I wonder why PADEP is thinking about decreasing courses, such as safety, as eligible contact hours. 2. I know of a Professional Engineer who is falsifying his work resume by claiming to be a PADEP Certified Operator. I contacted PADEP to obtain a complete list and did not see the person in question on the official list.</p>
1	<p>I believe that DEP should bring back trained laboratory staff to the treatment plant. As an educated environmental scientist I am constantly fighting to educate my coworkers on "proper" sampling &amp; "proper" lab technique. Bad sampling, begets, bad results! These people make process control decisions based on bad science. Please consider the lack of experience and mind set these managers have towards lab results. So frustrating!!!!</p>
1	<p>Please listen, an individual should be able to schedule an exam at the DEP regional offices in a one examinee setting, similar to</p>

	<p>taking CDL drivers license test and subsequent sub classes. Currently an 8 month wait for local testing for water/wastewater.</p>
1	<p>Needs broken down to the gen. areas of oper. for that plant that you run for testing I think a lot of people are failing in this area and studying for a lot of areas that don't effect them and makes it hard to pass this is making job loses because local gov person thinks it should be done faster if u don't get it your gone!</p>
1	<p>I feel that there is good and bad points to the certification program. Coming from a very small system it is sometimes difficult to attend classes all day because you do not have enough people to cover the plants while you are gone. I have even found myself having to leave class because of emergencies that arise at my systems and I must return to deal with them. Systems like mine struggle to afford the operators they have let alone staff more people to take the load off of some of the other operators so that we may attend training. I feel that operators "to do" lists keep getting longer and longer with every new regulation passed and system owners expecting more and more out of us. We hear at every class that their is a shortage of operators in this state and I feel that some of the reason is that people do not want to deal with all of the hoops and testing to get a license. Maybe the state needs to look at some new ways to recruit interest in our profession instead of developing more workload for there existing operators with every new regulation passed. Thanks for the opportunity to give my opinion about this situation.</p>
1	<p>1. Profesional certification should be administered by the profesional association not government regulators. 2. Inspectors should have to have been a full time operator for at least 2 years before they can be hired by the state as a DEP inspector.</p>
1	<p>Why should the owner of a facility be responsible for any violations if they hire a certified operator and make sure the plant</p>

	is fixed if told equipment is broken?
1	set up on line course in the same format as FEMA for Emergency Management Training . They are 1 to 2 hour course with exam that must be passed to receive credit for course , also there is no cost . Maybe offer 1 course a year to help oerator meet their required hours
1	I pay for my courses to obtain credit hours to keep my license out of my own pocket. Why cant the state offer free classes? Or charge according to the final grade the operator receives on the class to help me save me money.
1	DEP inspectors should be required to hold certifications equal to the facilities they inspect if they are going to comment in any way on process control
1	I have the highest level certification available. Certification is necessary in both the current and future operations/regulatory environment. The path to certification must be rigorous and relevant to be useful to all involved. However, there are flaws in the aspects of regulatory compliance that are unduly punitive on the operator. Particularly problematic are spurious analytical laboratory results.
1	Test to difficult for type of system I need to operate. Small package plants don't change that often and flow is usually the same. The general exam with the many questions on collection systems does not apply to me.
1	Having worked in PADEP and private sector before I entered the water/wastewater industry, I have noticed the lack of collaboration between the regulatory agencies and the operators. I feel that it would be more beneficial for all parties and the environment if the two could work together more. I also think that the different regional offices should be more uniform in its approach to

	<p>regulating. It is sometimes causes confusion as a circuit rider to keep track of the individual standards of each region and inspector.</p>
1	<p>I'm very concerned that in efforts to create more operators to fill the demand in the field, the certification testing has become too easy. My co-worker failed one module. When he took it again, the number of correct answers to pass was lowered because according to Certification personnel, people taking it were having trouble passing it. I don't believe we should be lowering standards or expectations in the water/wastewater fields just to fill the available positions.</p>
1	<p>Sanitarians should have operational experience. Knowing regulations and practical application of the regulations are two different things - one size does not fit all.</p>
1	<p>Sub class test blocks should be combined. One test for multiple sub classes. Keep the option to test individual class.</p>
1	<p>having to get CEU's every three years can be a pain. If you work at the same plant I believe you should not have to get 30 hours every time.</p>
1	<p>People don't want to work in this field anymore due to the testing and continuing education requirements and poor pay.</p> <p>Infrastructure is failing fast and elected officials control the money- but somehow, through this certification program, the operators are responsible for what happens because they passed a test and signed an SOP. How did that happen? Plants are designed hi-tech and built low bid and when it doesn't work as promised it's the licensed guy who is held responsible. What about customers who create the waste don't pay their sewer bills? Nothing seems to ever happen to them. If the government wants to reduce pollution they should start with population control. Its really that simple - people create the pollution. Start certification</p>

	programs for people who wish to give birth to children.
1	Should not have so many steps to become certified.....it is too costly to to have to take the exam multiple times for each subclass
1	You online study materials should reflect more of what the test will test. I found the online materials to be complete however, full of a lot information that did not help me with the exam.
1	Bring back the computer testing. I did the computer testing. Much easier and less pressure on you. Don't mind the computer proctor as much.
1	The continuing education credits for small systems like ours is useless, Because our systems are so simple, half the classes we take do not pertain to our system. also not enough variety for our small systems ,less than 100 people. I think dep wastes to much money on those flyers they send out about upcoming classes. Time consuming also,getting off work. Smaller system operators should not have to take continuing eds at all. We know our system better than anyone. And we know if there is a problem we know who to call. we know the rules! Hell my mother knows both systems and can run them both without any problems if i go away for the weekend or a week!
1	Continually update all modules for both water and wastewater so that they fit better with the corresponding exams. For example I was studying a module that was last updated in 2006 and it wasn't very helpful for the exam.
1	Experiene gained at either water, or wastewater treatment technology should count across both fields as operating experience.
1	Recommended minimum starting wages for various positions. Many "owners" are local elected officials who don't know the

	going rate.
1	More frequent testing classes for certifications and licensing. It takes 6 months or longer to get in a class and if you fail you have to wait another 6 months to retest.
1	More prep class for the general exam. Some of use do nothing with BSA and lagoons. Hard to take a test on something we do not see or use. When you people so much experience to take the exam.
1	Lost credits. I have had multiple issues with not being credited for certified courses I have taken. Time worked should count toward credits.
1	It is more difficult to take 'qualified courses' in PA than other states where i have an Operator license. Why in the world are you trying to decrease quilaified courses, such as safety realted ones? I guess operator must not be impornat about to provide sny safety type courses.
1	The operator is the person with the direct knowledge of the treatment system and has the most control over the effluent quality produced. The operator is usually the biggest variable in determining compliance.
1	I have taken this test several times and just recently past the activated test and came close to gen in the wastewater exam cant understand why I keep failing it ? and every time I took it felt real good about my chances , and at the 8th timed failed it \$\$\$
1	PA DEP (or any other) inspectors and PEs should not be allowed to have operators certification unless they are designated inspector or PE-only - even if experience is counted half. Visiting and observing or designing operating facilities in no way qualifies inspectors or PEs to be true experienced operators. Many of us who commented when the Act and regulations were being

	<p>prepared did greatly appreciate the opportunity to do so and, for the most part, PA DEP was a good listener, incorporating many of the suggestions in the final product. Is this part of a sunset plan to review the regulations periodically (say every 10 years)? That would be a good idea.</p>
1	<p>More affordable and accessible courses should be provided on line. Exam sites and frequency of exams in a given local should be the same throughout the Commonwealth, having all DEP office available for supervised on line exams (space within each is always available just not managed properly).</p>
1	<p>PA Rural Water does a fine job with classes, they are however becoming repetitious. I enjoy learning new ideas and attending classes with new info. It does seem that I have to take classes just to get my credits for renewal, not much new these days. The Meadville office of DEP does a great job of giving support when needed. Classes seem to be getting more expensive, some are too expensive.</p>
1	<p>If an operator is certified for chemical addition, why is it necessary to have a separate subclass for liquid chlorine? They processes are identical.</p>
1	<p>U should be able to take the exam more than 2 times a year cause in water there are 15 subclasses and 5 wastewater subclasses. U can not do all subclasses in two exam at 4 hours a exam with general taking up 60 min.</p>
1	<p>I do not understand why the operator has all the responsibilities when he must listen to a boss that may not have a license ? Also the the pay is not there for what is asked of us by the state ! we make clean drinking water for someone else to drink down the line. Some pay scales are just above what the state would allow my child to apply for reduced school lunches .</p>

1	<p>Regarding the operator certification study material that is on the website..... I've been told by operators who took the certification tests that are not tested on what they studied from the modules.</p> <p>Some thoughts: Could the study material be updated? or Should the operators be studying from the SAC books completely?</p> <p>Should the community colleges that use the PADEP modules re-vamp their programs? I'm not sure if the "test-takers" want to be "spoon-fed" the testing material or if the online curriculum needs to be revised/augmented. THANKS for the opportunity to comment.</p>
1	<p>Tests should be open book tests. How can this program be taken seriously as I know an operator that could no pass the "E" test but was given an "A" license?</p>
1	<p>I have tried 2 years in a row to schedule testing to take subclasses and have been denied a testing seat because I was told that first time operators taking the test would be given first priority.</p>
1	<p>I feel that if I am able to take classes in my area, all credits should count even if I have more credits than I need for a cycle. The credits should be able to be carried over to the next cycle.</p>
1	<p>The concept on continuing education via courses does not improve system operation. If an operators is certified and continues to successfully operate a system that alone should be sufficient. I see no valid reason requiring the operator and the system to expend resources for this program. If a course, such as the security course, is deemed essential then PA DEP should offer the course at no cost.</p>
1	<p>There should be reciprocity of licensing accross all 50 states. Why each state needs its own testing and certification program is redundant to me. It should be a US EPA license that is issued to the operators and not a parochial state one. I think in a few</p>

	<p>years, the number of certified operators is going to greatly decrease. Having the flexibility to move to a different state to take a similar position would be beneficial without having to go through that state's certification process as well.</p>
1	<p>We have very capable operators that are not "paper test" capable, there should be a better way to get them certified. A more practical rather than written exam format</p>
1	<p>The tests should be geared to what you do at your system especially if it is a small system and you are the owner. My system approx. 2500 gallons per day</p>
1	<p>I think plant safety and Traffic control courses should be included in the accredited courses. The course availability has gotten better in the past few years.</p>
1	<p>I know you are worried about the workforce getting older, so are we but most of us would not recommend that a young person look at our field as a career, why would we do that to someone. As hard as we work trying to do a good job with long hours, weekend work, emergencies, paperwork etc..... there is no respect from the DEP for the job we do. The overwhelming majority really do care about the environment and the take pride in the job yet we still are considered guilty until proven innocent for every single issue at our facilities. We are professionals that are being watched over, disciplined and penalized by inspectors (and other DEP personnel) that have never ran a plant and really have no experience in dealing with any sort of plant operations issues. You cannot learn to run a plant out of a book and have to learn through dealing with the day to day issues over time, most DEP personnel could not do the job that we do if they had to while most of us could probably do their job much better than they can due to our experience. The DEP seems to be all about accessing blame and accessing fines. If the DEP would work with the</p>

	<p>operators instead of looking to blame the operators for every single issue that comes up it would go a long way towards making a better working relationship. There is a huge difference between something being wrong and someone doing something wrong. In our eyes there is no difference when it comes the DEP, it is always the operators fault followed by a fine. We respect the job the DEP does and if there is something wrong that is an operators fault you have to do what you need to do but a little trust, respect and understanding of the myriad of out of our control problems we deal with (and resolve with no issues) on a daily basis would go a long way to improve relations with the current operators and make it a more palatable job opportunity for younger people.</p>
1	<p>I already had my license when the more stringent testing and training started 10 or so years ago. I had an employee who took the activated sludge exam more than 10 times without passing. I would say the exam was about right. I don't think he was ready to be a certified operator. I know you must get complaints all the time about the activated sludge exam being too hard. Without actually taking the exam I would say it must be about right.</p>
1	<p>Please allow credit carry over from cycle to cycle. Please consider reducing the number of credits for veteran operators as it is becoming a racket. (Just going for credits and not to learn anything)</p>
1	<p>The exam is ridiculous. I've been working at a plant for 20+ years and we do NOTHING that I am being tested on.(extended aeration subclass). Why not make the exam easier so people can pass it and the DEP can collect more money through continuing education classes then just \$55 for the exam. We are sewage workers - not rocket scientists.</p>