



97TH ANNUAL WATER & WASTEWATER OPERATORS SCHOOL

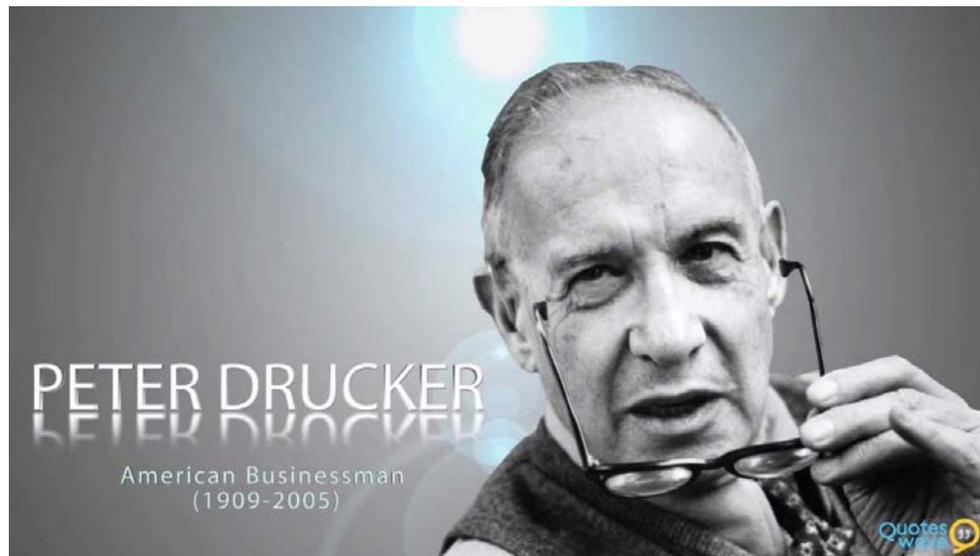
Roles and Responsibilities of the Operator In Responsible Charge

WASTEWATER TREATMENT SYSTEMS



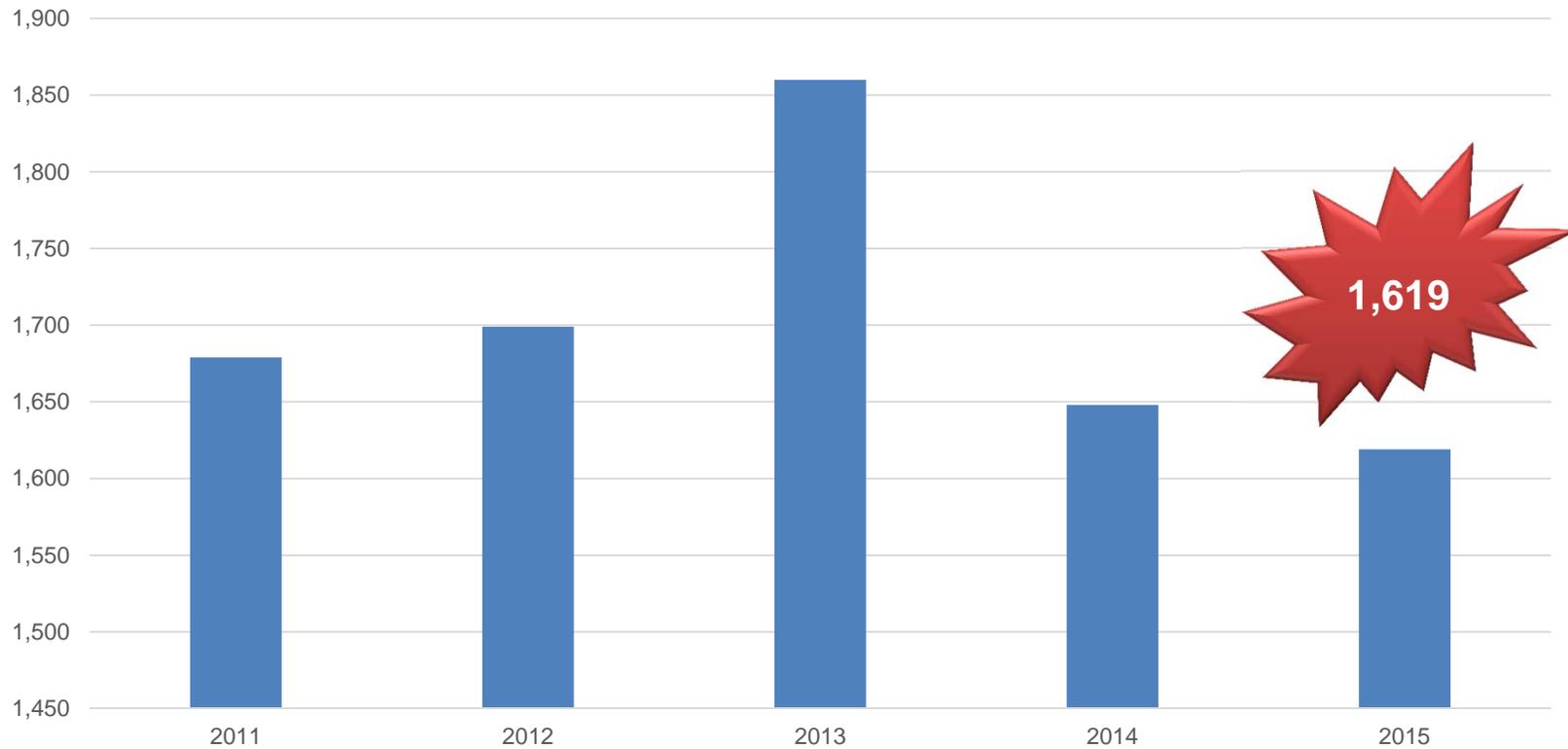
Peter Drucker

“Rank does not confer privilege
nor does it give power...it
imposes responsibility”



By the Numbers

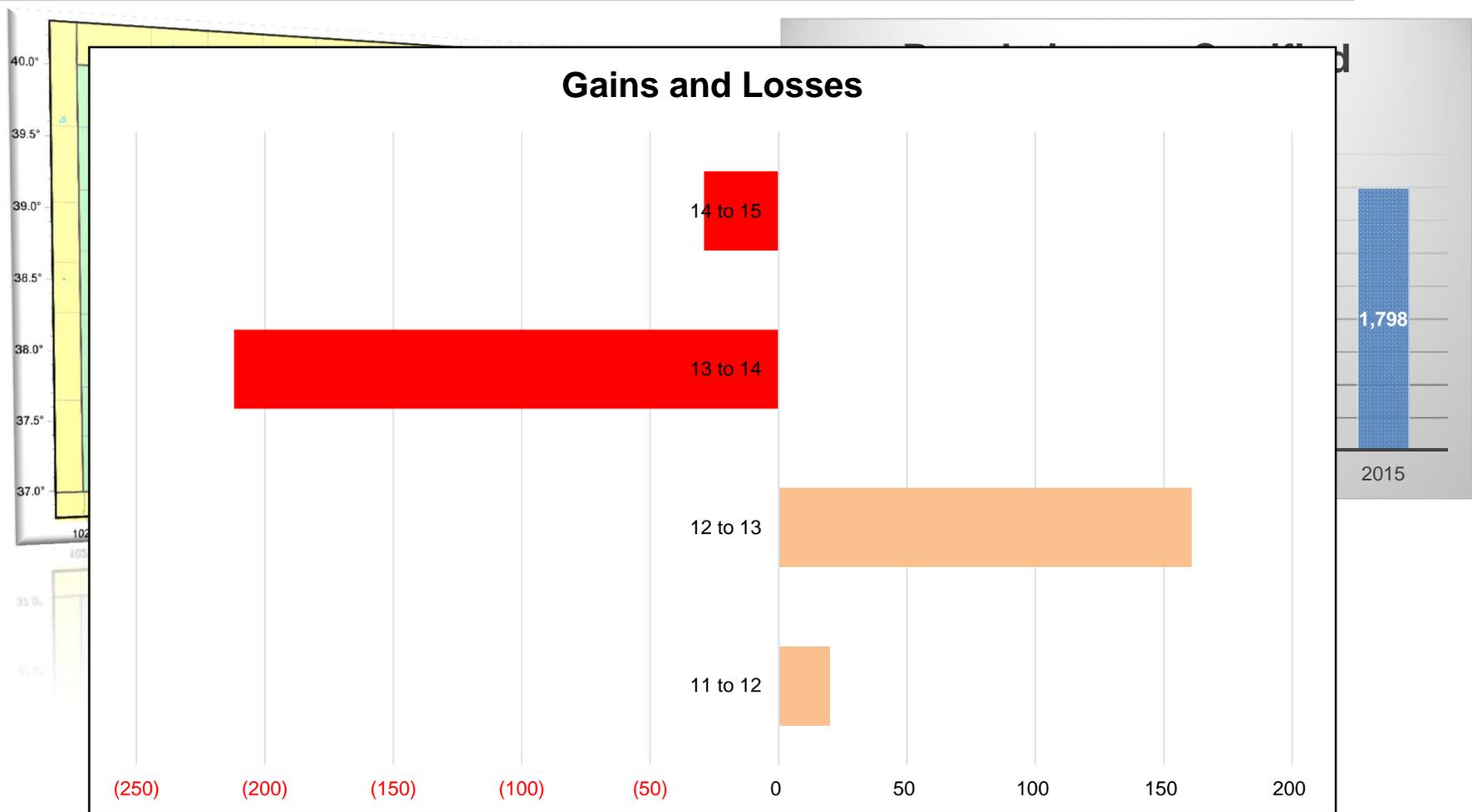
Total Number of Certified Wastewater Operators
(Small Systems to Class IV)



ROLES AND RESPONSIBILITIES OF THE OPERATOR IN RESPONSIBLE CHARGE



Kansas by the Numbers

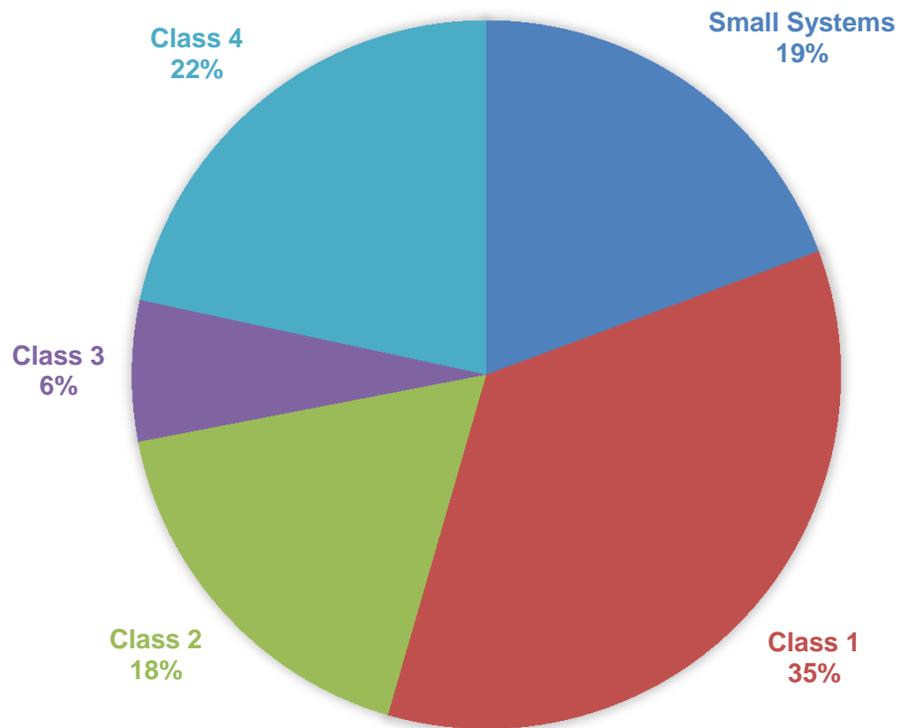


ROLES AND RESPONSIBILITIES OF THE OPERATOR IN RESPONSIBLE CHARGE



Looking Deeper Into the Numbers

2015

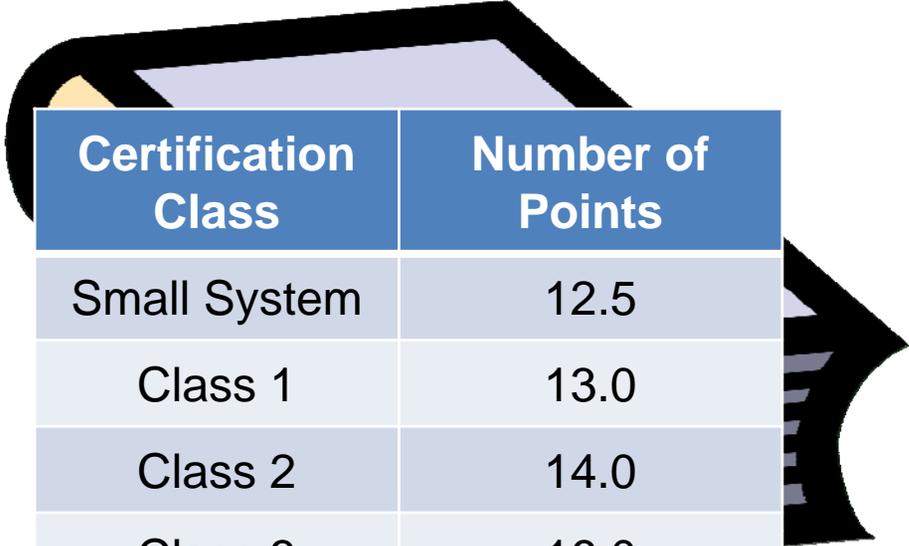


ROLES AND RESPONSIBILITIES OF THE OPERATOR IN RESPONSIBLE CHARGE



Becoming a Certified Operator

1. **Must be an owner or employed by a State of Kansas Permitted Wastewater Treatment Utility**
2. **Must have a High School Diploma or GED.**
3. **Must have met the minimum number of years of experience.**
4. **Must have acquired the minimum number of points...next slide**
5. **Pay the freight...\$25.00**



Certification Class	Number of Points
Small System	12.5
Class 1	13.0
Class 2	14.0
Class 3	16.0
Class 4	18.0

Credit Hours Vs Experience Points

Training/Education Experience	Credit Hours	Experience Points
1-day training**	5	0.00
2-day training**	10	0.25
KDHE Annual School	10 (2-Day) 15 (3-Day)	0.25 (2-Day) 0.50 (3-Day)
Diploma or GED	N/A	0.50
College education (30 Sem Hrs/Yr)	N/A	12.00
Operating experience	N/A	1.00
Cal. State Univ. Courses (per volume)	N/A	1.00
Approved semester-long Courses	54	1.50
Approved 2-yr environment tech degree	N/A	6.00
Approved Training-(40 Contact Hours)	40	1.0

Class	Description	Population Served
Small System	Non-Overflowing Lagoons	All
Class 1	Any secondary treatment facility	<1,000
	Overflowing wastewater lagoon	All
Class 2	Any secondary treatment facility	1,001 – 5,000
Class 3	Any secondary treatment facility	5,001 – 25,000
	Advanced or specialized treatment facility	< or = 5,000
Class 4	Any secondary treatment facility	>25,000
	Advanced or specialized treatment facility	>5,000

- ✓ Human health
- ✓ Characteristics of wastewater
- ✓ Confined space
- ✓ Types (sanitary, industrial, gravity, force main, etc.)
- ✓ Surface area
- ✓ Pumps
- ✓ Primary Treatment
- ✓ Secondary Treatment

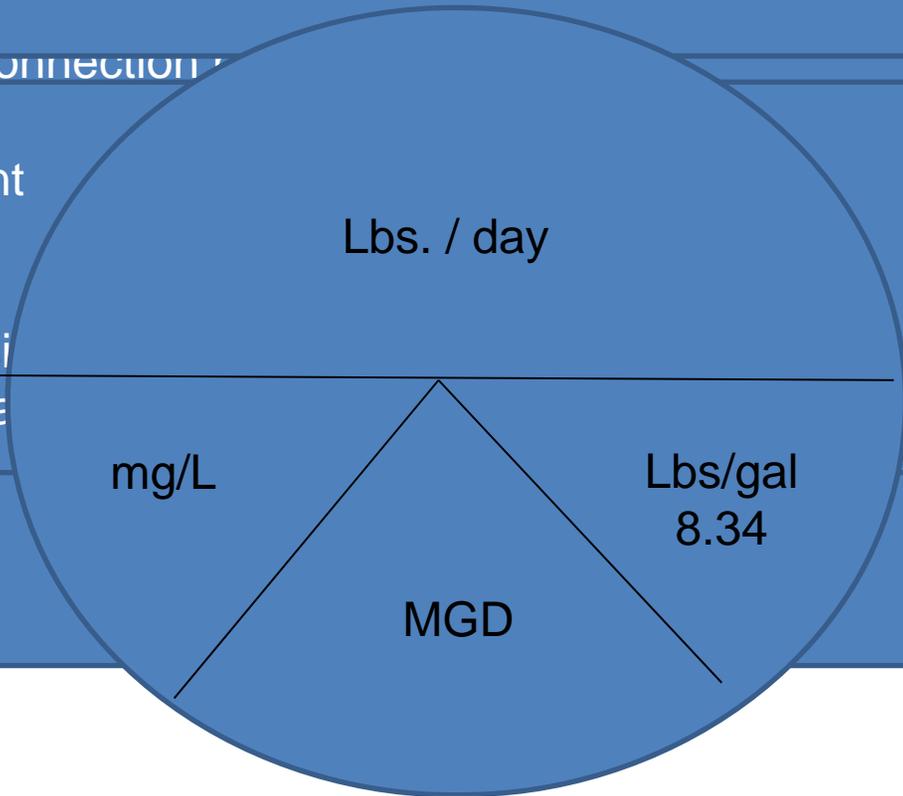
Collection System

- Math
- Basic Operation & Maintenance
- Treatment

- ✓ Human health
- ✓ Characteristics of wastewater
- ✓ Confined space
- ✓ Types (sanitary, industrial, gravity, force main, etc.)
- ✓ Surface area
- ✓ Pumps
- ✓ Grit Removal
- ✓ Primary Treatment
- ✓ Chlorination
- ✓ De-chlorination
- ✓ Ultraviolet

- Treatment
- Disinfection

- ✓ D.O. saturation
- ✓ Hazardous gasses
- ✓ I/I Correction
- ✓ Backflow/Cross Connection
- ✓ Grit Removal
- ✓ Primary Treatment
- ✓ Treatment
- ✓ Ponds
- ✓ Trickling filter basins
- ✓ Rotating Biological
- ✓ Activated Sludge
- ✓ Chlorination
- ✓ De-chlorination
- ✓ Ultraviolet



✓ Important parameters and the general laboratory procedures

✓ • Hazardous gasses encountered

✓ Importance of good communication

✓ Multiply/divide exponents

✓ Pumps

✓ Primary Treatment

✓ Chlorination

✓ De-chlorination

✓ Ultraviolet

✓ Rotating Biological Contactors

✓ Activated Sludge

✓ Sludge Handling

✓ Nitrogen reduction and phosphorous reduction

✓ Secondary Clarifiers

- ✓ Visual indicators of stream pollution
- ✓ Instrument maintenance

- ✓ Hazardous atmospheres
- ✓ Fire suppression

- ✓ Pretreatment

- ✓ Flow measurement

- ✓ Chlorination

- ✓ De-chlorination

- ✓ Ultraviolet

- ✓ Nitrogen reduction and Phosphorous Reduction

- ✓ Secondary clarification

- ✓ Sludge Handling

- ✓ Pumps

- ✓ Lubrication

- ✓ Advanced electrical

You're In Charge




ROLES AND RESPONSIBILITIES OF THE OPERATOR IN RESPONSIBLE CHARGE







02.27.2015





02.26.2016





Ethics

- A system of moral principles or a group of individuals
- The rules of conduct recognized in respect to a particular class of human actions or a particular group.
- That branch of philosophy dealing with values relating to human conduct, with respect to the rightness and wrongness of certain actions and to the goodness and badness of the motives and ends of such actions.
- Is it RIGHT or Is it WRONG?



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