

Certification Happenings

Newsletter for Licensed Wastewater Operators in the State of Delaware

MARK YOUR CALENDAR!

NEXT TESTING SESSION IS...

JUNE 11, 2010

DNREC'S 24-Hour Complaint Line

Report Spills & Violations

(800) 662-8802

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March 2010



The "Dija Knows" of the DMR

By Glenn Davis, Compliance and Enforcement Manager

Discharge Monitoring Reports (DMR), some "Dija Knows" that could cause your facility to be in non-compliance with their NPDES Permit:

Dija Know – your DMR must be postmarked by no later than the 28th of the month following any monthly compliance period?

Dija Know – all data entered must be accurate & must be supported by documented evidence that is traceable?

Dija Know – the DMR must be signed by the site official or an authorized person. NOTE: In order to be an authorized signatory, DNREC must have a letter on file from the site official stating the specific authorized signatory.

Dija Know – each individual sample that exceeds the daily maximum concentration or daily maximum loading, is counted as individual exceedence of the permit? As an example, if you had six (6) individual daily samples that exceeded the daily

maximum concentration for TSS, a "6" would be placed in the appropriate box labeled "No Exc" (Number of Exceedences) on the DMR.

Dija Know – if you analyze a sample for TSS on Calendar Day 1 and the value exceeds the daily concentration, every day thereafter will be out of compliance until you get a sample that is within the permit limitations (this applies to other parameters as well)?

Dija Know – if the analysis that you receive from your laboratory shows a value of Non-Detect (ND), you must report the value as "<" the Minimum Detectable Limit for that particular test. For instance, if the TSS is reported to you as ND, look for the MDL on the analysis report (or call the lab) and report that MDL value with the "<" symbol (example: <1.5 mg/l). Do not record ND unless specifically exempt in your particular permit.

Dija Know – that a sample frequency of 01/90 means once per quarter or once every 90 days. On a calendar year basis, this means that you should be sampling in January, April, July, and October each year. If you sample in March, and then again in April, this is not considered to be in compliance with your permit, even though you "technically" took samples in two different calendar quarters.

Dija Know – if you are not required to take a sample for any particular month, the blank box on the DMR that will have the result when you do sample, should show an NRQ (not required) instead of data. NEVER leave a blank box in your DMR when you fill it out. If there is a blank box on your DMR, you are required to enter any data that is available or some other identifier like the NRQ if no data is required that particular month.

Dija Know – if you are required to sample 01/yr (once per year), you should endeavor to sample around the same month each year. If you sample in January of 2010 and then wait until December of 2011 to take another sample, that's basically 24 months between samples, and would be an exceedence of your NPDES Permit (even though you "technically" took the samples in two different years).

We'll be back with more "Dija Knows" in the next newsletter.....

In Loving Memory

This edition of the Certification Happenings Newsletter is dedicated in loving memory to R. Peder Hansen.

He was a unique and dear man; a son, brother, husband, father, colleague and friend. He will be dearly missed by all who knew and loved him.

He is survived by his loving wife Deb, three beautiful daughters, his parents, his brother and many other loving family members.



Randall Peder Hansen

March 21, 1959 ~

December 21, 2009

Certifications & Expired Licenses ~ Fourth Quarter of 2009

OCTOBER

<u>CERTIFICATIONS</u>	<u>LEVEL</u>
Christopher Brinson	II
Les Bruner	II
Robert Janiszewski Jr.	IV
Gilbert Lore	I OIT
Judith Olewnik	I
Martin Sewell	IV

EXPIRED LICENSES

Richansom Exantus
Mark Misner
Richard Truitt
Elias Woldermariam

NOVEMBER

<u>CERTIFICATIONS</u>	<u>LEVEL</u>
W. Keith Powell	IV
Robert Salensky	I

<u>EXPIRED LICENSES</u>
Adam Bradford
Thomas Hain
David Peterson
Morton Todd

DECEMBER

<u>CERTIFICATIONS</u>	<u>LEVEL</u>
James Kimball	I
Larry Maichle	I
Nicholas Rappa III	I
Daniel Vitalo	I

<u>EXPIRED LICENSES</u>
Karlyn Cate
Robert Spinden

Please note that this newsletter is available electronically only. Those operators with a valid e-mail address on file will receive.

Thank You!

Exam Results

JAN. 8, 2010	Level	Total Number Taking Exam	Total Number Passed Exam	%	Total Number Failed Exam	%
	I	41	40	98%	1	2%
	II	12	12	100%		0%
	III	6	6	100%		0%
	IV	0				
	TOTAL	59	58	98%	1	2%

* data obtained from January 21, 2010 memo prepared by Delaware Technical and Community College

SWDS Welcomes Beth Krumrine

Please welcome Beth Krumrine, the new Environmental Scientist IV with the Surface Water Discharges Section. Beth is joining us from the DNREC Sediment and Stormwater Program, where she has worked for nearly six years in the field of Stormwater Management relating to construction activities. Beth possesses a BS in Environmental Biology from Edinboro University of Pennsylvania, and an MS in Wildlife and Fisheries Science with the Option in Watershed Stewardship from Pennsylvania State Uni-



versity. Prior to working with DNREC, she spent approximately two years working as a Watershed Planner with the New Hampshire Department of Environmental Services, two years as a Coastal Restoration Scientist with the Louisiana Department of Natural Resources, and one year with the Pennsylvania Department of Transportation. In her new position, Beth will be permitting stormwater for Municipal Separate Storm Sewer Systems (MS4s) and managing the industrial stormwater program.



Test Your Math Knowledge

What is the area in square feet of a rectangle 8 feet in length and 3.5 feet wide?

- (a) 14 sq. ft.
- (b) 24 sq. ft.
- (c) 28 sq. ft.
- (d) 26 sq. ft.

A tank holds 5,000 gallons of wastewater. How many cubic feet (cu. ft.) is this?

- (a) 66.8 cu. ft.
- (b) 668 cu. ft.
- (c) 599 cu. ft.
- (d) 80.1 cu. ft.

see Page 3 for the answers...

Volunteers Wanted....

The BOC is always looking for facilities that would like to host an "Open Mic" meeting, open to all licensed wastewater operators. The criteria for hosting a meeting is:

- Availability on the first Wednesday of any month at 10:00 am to approximately 12:00 pm.
- A room with enough seating for approximately 40 attendees, 3 BOC Members and 2 Administrative Staff.
- Coffee is always welcomed, but not required.
- Staff on hand to host tours of the facility.

If you would be interested in hosting an "Open Mic" meeting please contact Glenn Davis at (302) 739-9946.

Test Your Math Knowledge Answers

What is the area in square feet of a rectangle 8 feet in length and 3.5 feet wide?

$$\text{Length} \times \text{Width} = \text{Rectangle}$$

$$8 \text{ Feet} \times 3.5 \text{ Feet} = \mathbf{28 \text{ Sq. Ft.}}$$

A tank holds 5,000 gallons of wastewater. How many cubic feet (cu. ft.) is this?

$$1 \text{ Cubic Foot} = 7.481 \text{ Gallons}$$

$$5,000 \div 7.481 = \mathbf{668 \text{ Cubic Feet}}$$

SWDS Welcomes Robert Underwood

I am very excited to take this opportunity to introduce myself. My name is Robert Underwood and I am the newly hired Environmental Program Manager II of the Surface Water Discharges Section (SWDS), Division of Water Resources. I have been hired to fill the position previously held by Peder Hansen. I am very fortunate that I had the honor to work under Peder and hope that I can continue his legacy within the SWDS.



Upon accepting this position, I quickly came to recognize the important role of the licensed wastewater operator and am amazed at the responsibility each of you has committed to. I have also come to understand the role of the Board of Certification for Wastewater Operators (BOC). I would like to commend Brian Blackburn, Jerry Esposito and Glenn Davis for their outstanding work in support of our licensed community. I truly believe our licensing program is one of the best in the country and can contribute the success of the program to our operators input and the dedicated service of the BOC.

While I do not currently serve as a member of the BOC, I have and will continue to attend the monthly meetings. I would like to

remind everyone that these meetings are open to the public and I welcome the opportunity to meet and discuss any issues you may have.

I would like to share a little bit about myself. In 2005 after serving 20 years in the Air Force I re-

tired from Active Duty and accepted a position with the Department of Natural Resource and Environmental Control (DNREC). Since joining the DNREC team I have worked with the Division of Solid and Hazardous Waste and Department of Water Resources. I have an A.A. in Applied Science from the Community College of the Air Force and a B.S. in Environmental Science from Wesley College. Although not a licensed wastewater operator I completed the Level II/ III Wastewater Operator Certification Program at Delaware Technical Community College and passed the Wastewater Operator Level III exam.

I am honored to be a part of the wastewater operator community and look forward to working with everyone for many years to come. If you have any questions or concerns please feel free to contact me at (302) 739-9946.

If you would like to submit an article for the [Certification Happenings Newsletter](#) please e-mail Katherine.Wirick@state.de.us



Contact either Glenn Davis or Katie Wirick at (302) 739-9946 with updates to your contact information, to include mailing address, telephone number and/or e-mail address.

Still An Enforcer

This article first appeared in *Treatment Plant Operator* magazine, published by COLE Publishing, Three Lakes, Wis. It is reprinted by permission.

What's a former police officer doing at the Howard H. Seymour Water Reclamation Facility in Lewes, Del.?

He's getting the drop on technical and regulatory challenges, skillfully managing a three-person staff and keeping the 1.5-mgd plant in compliance. Walter Baumer's focus, energy and commitment as project manager earned him recognition from the Delaware House of Representatives as 2008 Wastewater Operator of the Year.

The award cited Baumer for demonstrating "outstanding technical excellence and an exemplary work ethic, contributing to the high level of water quality in Delaware." That's not to mention his yeoman's work in 2005-07 on construction of the community's new wastewater treatment facility, incorporating membrane bioreactor (MBR) and biological nutrient removal technologies.

That project tested his team's ability to keep the water flowing in this ocean resort town of more than 3,100 full-time and 10,000 seasonal residents. He's also responsible for maintaining 32 lift and pump stations throughout the area.

"I was somewhat surprised to get the award, especially since a lot of good people were nominated," says Baumer. "The whole concept of working at a treatment plant has changed. It's much more technologically sophisticated, and this award recognizes the effort and study that goes into running a modern, highly complex operation like ours."

WINDING ROAD

An 18-year water treatment plant veteran, Baumer has been manager of the Lewes facility since his employer, Severn Trent Services, entered a successful public-private partnership with Lewes in 2002.

Baumer's path to Operator of the Year has been twisty. A New Jersey native, he worked early in his career as a construction contractor and as a park ranger at Cape Henlopen State Park. Then he got into law enforcement, serving as a guard at the Delaware State Prison. From there, he became a police officer in Georgetown, but he hurt his back after only a year and had to resign.

Fortunately, his father-in-law heard of an opening at the wastewater treatment plant, and in 1992, Baumer signed on, starting in the plant.

"This has been a great experience," Baumer says. "It took me 10 years to earn my Level 4 operator's license, and I've enjoyed every minute of the learning experience. There is always something new to figure out, whether it's a piece of high-tech equipment or environmental and OSHA regulations. You never get bored, that's for sure."

To illustrate his point, Baumer cites the plant's decade-long evolution. When Baumer joined, it was a newly upgraded secondary treatment facility. Today, it is an MBR plant with a micro-filtration system that routinely exceeds permit requirements for BOD, nitrogen, TSS and phosphorous. Baumer lists three main reasons for the plant's success: technological, governmental and human.



ADVANCED TECHNOLOGY

The plant's Zenon membrane filtration system (GE Water & Process Technologies), UV disinfection system (Trojan Technologies), pre-thickened aerobic digestion membrane thickener (PAD-K) from Enviroquip – A Division of Eimco Water Technologies, and nutrient removal processes have played a big role in allowing the plant to reduce BOD and TSS load to the Lewes-Rehoboth Canal by about 2,500 pounds per month.

At the same time, these advances have achieved effluent concentration levels of less than 3 mg/l total nitrogen and less than 0.5 mg/l total phosphorous. The nutrient load reduction in the canal totals 3,200 pounds per month.

Although the plant has been upgraded to 1.5 mgd from 750,000 gpd, it is expandable to 2.2 mgd. It hasn't approached that level "because the town government has done a good job of cutting down infiltration," Baumer says. Lewes officials hired a Severn Trent division to smoke-test the sewer system.

"The Lewes Board of Public Works has been very efficient in maintaining its sewers, which makes it a lot easier for us to do our jobs," says Baumer, who also served for 17 years on the Lewes Volunteer Fire Department. "I've had good relations with the local government. It has been cooperative every step of the way."

STRONG PRAISE

So has Baumer's staff: Lori Brown, assistant project manager; Charles Simpson, maintenance supervisor; and

Continued to page 5...

Continued from page 4...

Dave Dunstan, operator. "I have a good team, that has been here a while, knows the issues and gets the job done no matter how challenging it gets," Baumer says.

Undoubtedly the biggest challenge Baumer and his staff faced was the upgrade of the treatment facility. The two-year, \$11.7 million project doubled the plant's capacity and provided capabilities to improve the health of the Lewes-Rehoboth Canal and inland bays and meet new NPDES permit requirements.

The groundbreaking facility, designed by George, Miles & Buhr LLC, represents the first time membrane bioreactor and biological nutrient removal technologies have been combined by a Delaware municipality. GMB won the 2009 Grand Conceptor Award from the Delaware American Council of Engineering Companies for the project.

"Despite the award-winning design and advanced technologies, we still had half of the plant off line during construction and had to accept the usual flow," Baumer says. "Essentially, our capacity doubled and we had to do the best we could to keep in compliance. It was a big job that pushed everyone — me included. To expand the plant, we had to shut down half of our bioreactor and the digester and headworks so they could build half of the new plant while the same flow was coming in. We were over capacity before the upgrade began."

Brown credits Baumer with keeping the plant on an even keel during the renovation. "Frankly, we couldn't have done as well as we did without Walt's expertise and calm guidance," she says. "Maybe it was his training as a guard or police officer, but he never got excited or lost his cool even when we'd have problems. That's the way he does everything — with quiet confidence."

Brown has worked with Baumer for almost eight years, joining the plant team after earning an associate degree in environmental engineering from Delaware Technical College. "I was new to wastewater treatment and had to get up to speed quickly," she says. "Fortunately, Walt took me under his wing and taught me

so much. I would never have made assistant project manager without Walt's tremendous expertise and excellent teaching capabilities. I consider him an excellent boss and a good friend."

'VERY COMMITTED'

As for Baumer's work ethic, Brown is equally complimentary. "We're on call 24/7, and if I have to call Walt at two in the morning, I know he'll answer the phone and not sound angry," she says. "One time I had an electrical problem at the plant and needed to do some testing. So I called Walt at 4:30 a.m. and he tried to walk me through the procedure. When that didn't work, he got in his car and drove to the plant and we did the test. Not every supervisor would handle a situation so patiently."

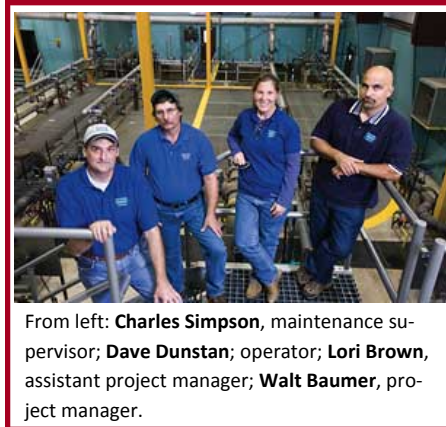
Baumer's boss, Dave Fink, area manager for Severn Trent, agrees. "Walt is a very hard worker, very committed to the plant's success," he says. "He's the kind of guy who takes his

laptop with him on vacation, checks his e-mail every day, and even answers phone calls if there are problems."

Fink, himself a 37-year industry veteran, praises Baumer for being "well rounded in all aspects of the business." He points to Baumer's hands-on management style and mentoring capabilities as well as his ability to rebuild pumps or fix equipment. And he, like Brown, believes Baumer was vital to the success of the plant expansion.

"Walt and his team had to overcome a lot of issues during the construction, and he did so without complaining," says Fink. "When it was over, he was given a rebuilt facility with state-of-the-art processes and immediately brought it into compliance. That in itself is worthy of an award."

Baumer, of course, downplays such praise, focusing on the job at hand: making sure he's up on regulatory changes and quickly arresting problems. "I'm a lucky guy," he says. "I've been a cop and a lot of other things, but I found a career that's really satisfying — one that lets me help people and make a difference in my community."



From left: **Charles Simpson**, maintenance supervisor; **Dave Dunstan**, operator; **Lori Brown**, assistant project manager; **Walt Baumer**, project manager.



Visit us on the web at

<http://www.wr.dnrec.delaware.gov/Services/OtherServices/Pages/SurfaceWaterDischargesLicensing.aspx>