

LABNOTES *Summer 2005*



Also in this Issue:

DNR presents “Oscars” of the Wastewater Lab Community

By Camille G. Johnson

During her Lab of the Year acceptance speech Retamarie (Reta) Seidl of the Sparta Wastewater Treatment Facility (WWTF) said “thank you for the “Oscar” of the wastewater world”! The small facility winner, Tod Stanton of Middle River Health Facility, said “...and I am very proud to receive this award”. This year marks the tenth anniversary of the DNR Lab of the Year awards. Once again, we had a number of extremely qualified nominations, but Sparta Wastewater Treatment Facility and Middle River Health Facility stood out above the rest. The 2005 Lab of the Year awards were presented by Secretary Scott Hassett and David Webb, Chief of Environmental Science Services, at the March 23, 2005 Natural Resources Meeting in Madison.



From left, Amy Smith, Administrator for the DNR’s Enforcement & Science Division is pictured with 2005 Lab of the Year winners, Tod Stanton (Middle River Health Facility), Reta-Marie Siedl (Sparta WWTP) and Mark Flock (Sparta WWTP).

- **Meetings & Training Opportunities.....3**
- **Program Administration..... 4**
 - New Look for Certificates
 - An Auditor Retires
 - FY2006 Fees
 - 5th ed. Of SDWA Manual
 - Labs in Distant Lands
 - UPDATE: Discrete Analyzers
- **Proficiency Testing.....8**
 - SDWA Changes
 - PT Deadlines
- **Council Corner.....9**
 - Lessons Learned
- **Hazardous Waste.....10**
 - NR 600 Rule Change
- **Groundwater.....11**
 - GEMS Newsletter
- **Cross Media Issues ...11**
 - Low Level Mercury
- **Drinking Water.....12**
 - E-Data Update
 - Use of ICP for Arsenic
- **Wastewater Focus.....13**
 - BOD Holding Time
 - Representative samples
 - Sediment Methods
 - Biosolids Forms
 - 4th QTR DMR insert

Continued on next page

Labs of the Year, continued.

Sparta WWTF was the winner in the Large Registered Facility category. The lab manager, Reta, has had a long history (over 13 years) of being a dedicated and careful analyst. At the award ceremony, David Webb remarked: "*Reta is not satisfied with a 0.99999808 for her calibration's correlation coefficient, she's seeking a perfect 1.0!!*" Webb also discussed the depth of Reta's dedication. She voluntarily assists neighboring communities with their lab issues in addition to her full-time duties. Reta approaches her work with extraordinary interest, understanding and dedication. Sparta WWTF staff routinely analyze more quality control samples than required, and do extra samples to research side issues. Reta Seidl and the other Sparta WWTF staff demonstrate exceptional combination of attitude and ability which enable them to perform top quality lab analysis.

The Lab of the Year award winner in the Small Registered Lab category, was Middle River Health Facility located in South Range, WI. There is not a long history here, but rather a story of an impressive turn around. Tod Stanton is the lead analyst at the facility. When he was advanced to the position he had very little wastewater background and inherited a lab and plant that needed some improvement. Tod and other staff at the Middle River Facility really applied themselves and have turned things around superbly. The Middle River Lab staff have gone above and beyond in their record-keeping, quality control practices and overall management of the lab. David Webb said "Tod has demonstrated a great understanding of the link between the lab data and the functioning of the wastewater treatment plant". Tod also shows a great deal of dedication to get up to speed and make so many improvements in a short period of time, especially with no former wastewater experience. The lab was recognized for the great improvements they made and maintained at the lab.

Both of these labs are to be commended for their extraordinary efforts. It takes exceptional work to be nominated from the pool of over 275 registered labs. To then be chosen as the winner really is an honor.

Continued on next page.

LabNotes

Newsletter of the Laboratory Certification Program

LabNotes is published twice annually by the Wisconsin DNR Laboratory Certification and Registration Program. For information about distribution or to make suggestions for future articles, contact the editor.

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Lab of the Year winners, continued.

The Lab Certification program knows how challenging lab analysis can be and we really enjoy celebrating some of the best labs in our state. Congratulations to Sparta WWTF and Middle River Health Facility! To all you other labs out there – keep up the good work you are doing – it is very important!

This is the tenth year these awards have been presented to laboratories that have demonstrated exceptional efforts towards generating high quality data. The data they generate is very important because many programs in the DNR utilize data submitted by these labs to make regulatory decisions. Registered Laboratories may be nominated for this award by anyone, and a committee made up of DNR Lab Certification personnel chooses the winners. David Webb stated that “over 300 registered laboratories were eligible to be chosen for this honor”. It takes very outstanding efforts to be nominated for this award, and to be chosen as the winner is a great mark of distinction.



DNR Certification Officer Camille Johnson is flanked by winners Tod Stanton (L)[Middle River Health Facility] and Reta-Marie Seidl (R) [Sparta Wastewater Treatment Plant].

Nominations for the 2006 Registered Laboratory of the Year awards are now being accepted. Anyone may nominate a facility as long as they fall into the Registered category (labs in the Certified category are not eligible). To obtain a nomination form contact Camille Johnson at (715) 831-3272 or by email at Camille.Johnson@dnr.state.wi.us. ☞

Exams, Meetings & Training Opportunities

Operator Certification Exams

DNR will hold Wastewater, Drinking Water and Septage Operator Certification exams November 2, 2005 (*postmark deadline October 5, 2005*) in DNR Regions around the state. Check the Operator Certification web site for details, as they become available. Application packets will be mailed, about August 1, 2005, to all operators who have taken an exam in the last 18 months..

www.dnr.state.wi.us/org/es/science/opcert

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2004 Conferences, Meetings

WLA 29th Annual Conference

The Wisconsin Laboratory Association (WLA) will hold the 29th Annual Fall Educational Conference in September 2005. *Dates and location unavailable at press time.* For more information, please contact Cindy Kallstrom (cKallstrom@Kerrygroup.com) or Dave Christel (DJChristel@landolakes.com).

<http://wilabassociation.tripod.com/wla/id1.html>

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WWA Annual Conference

The Wisconsin Water Association (formerly AWWA WS) 84th annual conference is scheduled for September 14 through 16, 2005 in LaCrosse. Contact Jack Albrechtson at (608) 831-6554 for more information.

<http://www.wiawwa.org>

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WWOA Annual Conference

The Wisconsin Wastewater Operators Association 39th annual conference is to be held October 4 through 7, 2005 at the Regency Suites & KI Conference Center in Green Bay. Check the WWOA web site for more details.

www.wwoa.org

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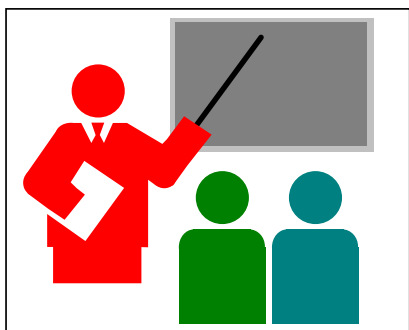
WRWA Operator Expo

The Wisconsin Rural Water Association will hold its 4th annual Operator Expo is to be held Thursday August 25, 2005 at state headquarters in Plover.

Check the WRWA web site for more details.

www.wrwa.org

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Training for Lab Analysts

Laboratory Analysis 1 October 18-20, 2005
Fond du Lac/MPTC (800) 221-6430

Laboratory QA 2 December 13-14, 2005
Green Bay/NWTC 800 422-6982 x5444

WaterWorks Math December 13, 2005
Madison/MATC 608-246-5217 (Barb) or
608-246-5201 (Don)

WaterWorks Math September 15, 2005
Green Bay/NWTC 800 422-6982 x5444

BTC: Blackhawk Technical College

CVTC: Chippewa Valley Technical College

FVTC: Fox Valley Technical College

NWTC: Northeast Wisconsin Technical College

MPTC: Moraine Park Technical College

MATC: Madison Area Technical College

www.dnr.state.wi.us/org/es/science/opcert/training.pdf ☞



Retiring auditor Don Domencich (L) receives a certificate of appreciation from Section Chief David Webb.

Program Administration

New Look for Certificates

The new fiscal year for the Laboratory Certification & Registration Program begins July 1, 2005. During the month of August, certificates for fiscal 2006 will be generated covering the period from September 1, 2005 through August 31, 2006. These certificates will look different from those in the past due to three program updates.

- For the first time, certificates for labs certified to perform drinking water analysis will include the analytical method(s) for which they are certified.
- Also for drinking water certifications, we are abandoning our former “groupings” and certifying by analyte. The only remaining analyte groups will be VOCs, THMs, and HAAs.
- Finally, we are moving towards the use of a one-page, “fancy” certificate which refers to attachments that include specific certifications.

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Don Domencich retires...again

For 18 years Don Domencich has been a familiar face to the wastewater laboratory community... at least those facilities in the DNR’s southeast and northeast regions.

Don, a retired chemistry instructor, will be retiring from his second career as a Regional Certification Officer effective July 1, 2005.

Don brought an educator’s background and an amiable personality to the LabCert Program and will be sorely missed. Auditors working out of the Central Office will be taking over audit responsibilities for Don’s current territory, which includes about 70-75 wastewater labs in the DNR’s northeast region.

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Fiscal Year 2006 Certification and Registration Fees

The Natural Resources Board on March 23 unanimously approved the department’s laboratory certification and registration fee schedule for Fiscal Year 2006. The fee schedule was previously reviewed by the Certification Standards Review Council, who provided their unanimous support and recommended Board approval. A public meeting was held on February 11 in DeForest, WI to discuss the proposed fee schedule. There were no attendees. The approved fee schedule will allow the Department to fund the laboratory certification and registration program at a level below its spending authority as established under Chapter 20.370(3)(fj), Wis. Stats.

The complete fee schedule is provided in the table below:

Laboratory Fees for FY 2006 (Sept.1, 2005 - Aug. 31, 2006)

Fee Item	FY 2006 Unit Price	Fee Item	FY 2006 Unit Price
Registered Base Fee	\$550.00	Category 10	\$220.00
Certified Base Fee	\$825.00	Category 11	\$220.00
Reciprocity Fee	\$1,650.00	Category 12	\$220.00
Initial Application Fee	\$330.00	Category 13	\$220.00
Revised Application Fee	\$165.00	Category 14	\$220.00
Category 1	\$55.00	Category 15	\$660.00
Category 2	\$55.00	Category 16	\$220.00
Category 3	\$55.00	Category 17	\$660.00
Category 4	\$55.00	Category 18	\$1100.00
Category 5	\$110.00	Category 18a (Nitrate Only)	\$110.00
Category 6	\$110.00	Category 18b (Nitrate & Fluoride)	\$220.00
Category 7	\$220.00	Category 19	\$220.00
Category 8	\$220.00	Category 20	\$1,430.00
Category 9	\$220.00	Category 21	\$220.00

Note: Application fees are effective July 1, 2005

Fees are calculated using the formula promulgated in s. NR 149.05, Wis. Admin. Code. This formula uses a relative value system to equitably distribute the cost of administering the program across all participating laboratories. Each fee item is assigned a relative value in Ch. NR 149, Table 2. The total number of available RVUs is the sum of the relative values of each fee item multiplied by the number of labs certified or registered for that fee item in the coming fiscal year. The cost per RVU is calculated by dividing the program's operating costs (not including projected travel costs for audits of out-of-state labs, for which these labs are billed directly), by the total number of available RVUs. The cost of each fee item is determined by multiplying its relative value by the cost per RVU.

Certification and registration renewal fees will appear on the environmental fee statements that will be mailed in late May. Payment will be due in full by June 30, 2005. Late fees will be assessed to laboratories that fail to pay renewal fees by this deadline.

Please contact Greg Pils at (608) 267-9564 or gregory.pils@dnr.state.wi.us if you have any questions about your fees.



EPA Releases 5th Edition of its “Manual For the Certification of Drinking Water Laboratories”



By Camille Johnson

In January 2005, the Environmental Protection Agency (EPA) published the Fifth Edition of the “Manual for Certification of Laboratories Analyzing Drinking Water”. A copy of the latest edition can be downloaded from the EPA website at: <http://www.epa.gov/safewater/labcert/index.html>.

According to the EPA, the manual was revised to address newly promulgated regulations and methods and to allow States to accept NELAP accreditation in lieu of Drinking Water Certification. Wisconsin is not participating in NELAP accreditation at this time, therefore, that is not an option in Wisconsin. The changes in the manual are fairly minor. The majority of the revisions were done to address the changes to methods citations, changes in technology and terminology.

Manual updates include:

- ◆ **current information on disinfection byproduct analyses.**
- ◆ **Clarifies a number of items on which previous versions were silent**

The new edition of the manual:

- Adds bromate chlorite, and HAA5 as regulated parameters
- Updates method references throughout.
- Updates MCLs and MDLs throughout.
- Revises checklists and tables.
- Specifies that requirements in the methods must be followed.
- Requires measurement and recording of the temperature of samples when they arrive when temperature preservation is required by the method.

- Adds additional criteria for revocation. The refusal to participate in an audit can be grounds for revocation.
- Changes terminology of “performance evaluation samples” to proficiency testing (PT) samples.
- Specifies that PTs be handled like a routine sample (no special treatment for those PTs)!
- Includes recommendations that the QA plan be revised annually, include specifics on low level capability demonstrations and contain plans for software support of data.
- Contains more emphasis on the safe storage of chemicals including a recommendation to have secondary containment for hazardous wastes.
- Details changes to lab reagent water requirements.
- Updates the thermometer calibration recommendations including quarterly calibration of digital thermometers.
- Includes a new use of the 80% rule by applying it to HAA5 PT samples.
- Requires that for labs which are still certified for total THMs but under the DBP Rule, each THM concentration must be reported, evaluated and passed individually to pass the PT sample. The DBP Rule also states that if a laboratory fails one THM, it cannot be certified for TTHMs, but must analyze another PT sample and pass all four of the THMs in a PT sample to be certified to analyze compliance monitoring samples for total trihalomethanes.
- Includes new low level quantitation requirements. From section 7.2.12 of the manual: “The laboratory's minimum reporting limits (MRL) should be reported to the client along with the data. The reporting limit must be below the MCL. Laboratories should run a LFB at their MRL every analysis day and should not report contaminants at levels less than the level at which they routinely analyze their lowest standard.”

Please contact Camille Johnson at (715) 831-3272 or by email at Camille.Johnson@dnr.state.wi.us. if you have any questions about this update. ☘

Labs in Distant Lands

By Camille Johnson

Ever wonder if we certify labs outside of Wisconsin? Well, there are labs all across the country that are certified by the Wisconsin DNR Lab Certification Program. Wisconsin currently has reciprocity agreements with seven states and certifies about ten labs through those agreements. Wisconsin also directly certifies over fifty out-of-state labs in eighteen states.

The reasons why out-of state labs obtain Wisconsin certification are diverse. The reasons can include: having clients in Wisconsin, planning to obtain clients in WI, having company subsidiaries in WI, and wanting the certification because it is well-respected. Many labs need it because any data that is submitted to a Wisconsin DNR program has to be generated by a lab certified in Wisconsin. Also, some out-of-state labs can provide very specialized analysis (such as Dioxin) that may be needed for Wisconsin projects.

Out-of-state labs are required to follow the same regulations and pay the same fees as in-state labs unless they are certified under a reciprocity agreement. Reciprocity labs are those certified under another states' program with whom we have a reciprocal agreement. There is a special fee for Reciprocity labs. Labs certified under reciprocity are not audited by the Wisconsin Lab Certification staff (they are audited by their home state). All other out-of-state labs are audited triennially by Wisconsin auditors. The audit is where extra costs are incurred by out-of-state labs because they have to pay for the auditors' expenses including: travel, food and lodging. The auditors take care to keep the costs as reasonable as possible, but many of the labs are in high cost cities.

Now the next time you find out your auditor is in Michigan you'll know why. ☹



CORRECTION: Discrete Analyzer Use

In January we posted an update regarding the use of Discrete Analyzers based on a memo we received from EPA Region 5. This memo represented a major change to guidance we had published originally in last issue of Labnotes (Fall 2004). The information seemed contradictory at the time, so a decision was made to verify the message.

With the assistance of some external folks, one of our program staff took the lead on the quest for accurate information and was able to confirm through Pat Churilla (Region 5) that Bill Telliard has established that discrete analyzers may be used for SDWA compliance testing provided that certain criteria are addressed. These criteria are outlined in a letter from Mr. Telliard to Westco Scientific Instruments, Inc. back in 2002. They are essentially:

- *Labs understand that auditors may question the data and its integrity*
- *All procedures in the referenced method are followed*
- *Use and operation of the discrete analyzer system are incorporated into lab SOPs*
- *All method specified sensitivity and quality acceptance/quality control criteria are met*

We will continue to request labs to submit letters of EPA approval or recognition of their vendor's analyzer as we have also been doing to date. Mr. Churilla also clarified that the memo that accompanied his January e-mail addresses CWA testing only, and does not apply to SDWA testing. Therefore, as for wastewater, discrete analyzers can be used for drinking water compliance monitoring as long as the manufacturer has obtained a letter from the EPA documenting that the chemistry involved is equivalent to that in one of the approved methods.

Please accept our apologies if the previous posting on our website on this subject caused you any inconvenience. As a primacy state, we have an obligation to comply with directives originating from EPA Region 5 until we obtain confirmation that these directives are in error. ☹

Proficiency Testing

Drinking Water: Certification by analyte

by Rick Mealy

We've talked about it, and now we've done it! In December we sent out Status Update forms to all labs currently certified to perform drinking water analysis. The purpose of the forms was to have laboratories declare current methodology they use—and will continue to use—to analyze drinking water samples.

All of this current information was loaded into our certification database, and individual unique test codes were created for each analyte and approved methodology. A program was then developed to convert existing certifications (many of which were for analyte “groups” we had specifically created) into analyte and method specific certifications. At this point, certificates will now indicate the method(s) for which a laboratory is certified to submit drinking water results to the Department. An example certificate from a large commercial lab can be found on the inside back cover of this issue of LabNotes.

This means that the annual certification renewal process will be a little more difficult than in previous years if your laboratory is certified to perform any drinking water parameters (Test Category 18). Rather than simply ensuring that you have submitted an acceptable PT result to us for each analyte, you will also have to be sure that you've submitted, for each drinking water analyte, an acceptable PT result for each method that you indicated you wished to be certified for on the Status Update Form.

We will NOT accept your results in any of the following cases:

- you report an unapproved method to the PT provider,
- you report a result for a method which you are not currently certified (based on the Status Update Form information)
- you report the incorrect method to the PT provider (*this is consistent with our policy to not accept results that are inadvertently reported in the incorrect units or a transcription error is made*).

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REMINDER: Renewal PTs Deadlines

January 1 PT studies must close after January 1 to be counted for the 2005-2006 certification and registration cycle.

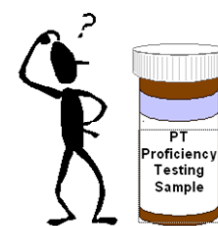
August 31 Acceptable results must be received by the Department by midnight August 31, 2005.

September 1 Laboratories that did not submit acceptable reference sample results for each test for which they are required prior to September 1, 2005 are not renewed for those tests, must cease performing analyses for the analytes, and are required to subcontract the work to a certified laboratory.

Reapplication will be necessary.

Laboratories must annually achieve acceptable reference sample results for each test for which certification or registration renewal is sought. Reference samples for renewal must be analyzed after January 1 of each calendar year. This office must receive reports from reference sample providers by August 31. For example, if your laboratory wishes to renew its BOD certification for the period beginning September 1, 2005, you would have to analyze and pass a reference sample between January 1 and August 31, 2005. Although the current certification period ends August 31, 2005, the program needs sufficient time to generate and distribute certificates to the laboratory community by September 1.

Please direct questions about reference sample requirements to Rick Mealy, Laboratory Certification Chemist at (608) 264-6006 or richard.mealy@dnr.state.wi.us. ⌘



Council Corner

By Paul Junio, Council Chair



We're in the process of installing a new LIMS (Laboratory Information Management System – the computer program that tracks our analyses, creates our reports and deliverables, all of that) here in the lab. Our previous system was written in house, and we had been running it since late 1989. As a company, we reviewed 5 LIMS providers, and we chose what we thought was the best of the bunch as our new system.

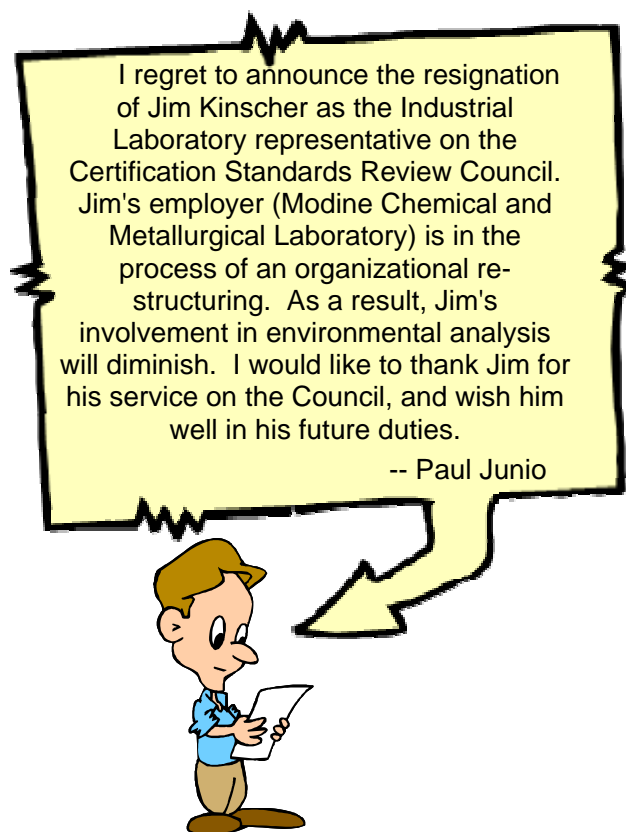
The old LIMS was nice and comfortable to the people who work here. It had been tweaked over time, so that it could handle any part of the lab business. As such, it had a lot of menus, each having about as many sub menus, and so on down the line. As long as you knew where something was, it could be run. One tweak that was never made, and this is something that is incomprehensible, is that the system was never made "Windows-friendly". The entire LIMS was UNIX based, and was entirely keyboard dependent (i.e., no mouse!). There were no drop down menus; no right-clicking to copy things to a clipboard; none of the Windows bells and whistles to which we've all grown accustomed.

Of course, everyone hates the new LIMS. It's different, and we don't like different. People can't find what they're used to finding. There's a different way to enter their data, or upload their data, or review their data. Reports are generated in a different manner. Things are called 'work orders' now instead of 'job numbers'. We have 'analyte codes' now instead of 'test codes'. Reports refer to certifications by method (*that's a nice addition, even though it doesn't really apply here in Wisconsin*).

Well, not everyone hates it. Those people who haven't worked here long have no problems adjusting, because they aren't used to the old LIMS (*and they're frequently more computer savvy than the old time users*). However, due to the general grumbling in the lab about how awful this LIMS is, the new users (*or those like me who've adapted to the new LIMS*) remain quiet. Sometimes it's easier to just go with the flow.

As time goes on, though, I expect that people will learn the new system. They'll learn that it handles things better than the old LIMS, and that we can do many things in a better, more efficient manner that we were able to in the past. When that day comes, I look forward to hearing how much of a hassle the old LIMS was.

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I regret to announce the resignation of Jim Kinscher as the Industrial Laboratory representative on the Certification Standards Review Council. Jim's employer (Modine Chemical and Metallurgical Laboratory) is in the process of an organizational restructuring. As a result, Jim's involvement in environmental analysis will diminish. I would like to thank Jim for his service on the Council, and wish him well in his future duties.

-- Paul Junio

Current Council Members

Representation	Name	Phone # / e-mail
Commercial Laboratory	Paul Junio (Chair)	(920) 261-1660 PJunio@testamericainc.com
State Laboratory of Hygiene	George Bowman (Vice Chair)	(608) 224-6279 gtb@mail.slh.wisc.edu
Demonstrated Interest in Lab Certification	Marcia A. Kuehl (Secretary)	(920) 469-9113 makuehl@aol.com
Public Water Utility	Katie Edgington	(608) 755-3115 edgingtonk@ci.janesville.wi.us
Small Municipal Wastewater Plant	Randy Herwig	(608) 592-3247 rherwig@wppsys.org
Industrial Laboratory	Vacant	Vacant
Large Municipal Wastewater Plant	Kurt Knuth	(608)222-1201 x293 kurtk@madsewer.org

Hazardous Waste

Update on the Hazardous Waste (NR 600 series) Rules

By John Melby, Policy Section Chief

Last spring (Spring 2004 LabNotes) I updated everyone on the status of the HW rule development process and why we were revising the NR 600 series and NR 590 administrative rules. Since then, the Bureau of Waste Management has made significant progress in developing proposed rules.

On March 23, 2005, the Natural Resources Board (NRB) approved our Greensheet Package and authorized to proceed to public hearings with proposed revisions to the NR 600 series. The Greensheet Package is located on the Waste Management Web site at

[<http://dnr.wi.gov/org/aw/wm/hazard/proprules/indexnew.htm>]. I encourage you to visit the Web site to see the Greensheet Package and the detailed schedule.

Here is an abbreviated schedule.

Significant Milestone	Expect Complete
NRB meeting (March) to allow for public hearings	3/23/05 Completed
Post Greensheet Package on the Waste Management Web site [http://dnr.wi.gov/org/aw/wm/hazard/proprules/indexnew.htm]	3/24/05 Completed
Post proposed HW rules on WI Administrative Rule web site for comments [https://apps4.dhfs.state.wi.us/admrules/public/Home]	3/30/05 Completed
Complete 4 public hearings [May 11-13, 2005] Locations: Madison, Eau Claire, Wausau and Waukesha]	5/13/05
Close of public comments period	5/31/05
Post Public Hearing Comments Summary on Web site [http://dnr.wi.gov/org/aw/wm/hazard/proprules/indexnew.htm]	7/11/05

Post Responsiveness Summary on Web site [http://dnr.wi.gov/org/aw/wm/hazard/proprules/indexnew.htm]	8/1/05
Post the Greensheet Package on Web site [http://dnr.wi.gov/org/aw/wm/hazard/proprules/indexnew.htm]	12/1/05
NRB meeting (December) to approve the NR 600 series rules	12/6/05 or 12/7/05
Sent to Legislature for Review (30 days), if approved by the NRB	January 2006

Written comments on the proposed administrative rule may be submitted to Ms. Pat Chabot - WA/3, Bureau of Waste Management, P. O. Box 7921, Madison, WI 53707-7921 or electronically by using the Administrative Rule website at:

[<https://apps4.dhfs.state.wi.us/admrules/public/Home>].

All written comments must be post marked or received by 4:30 p.m. on May 30, 2005. Electronic comments must be entered into the Administrative Rules System by May 30, 2005. Written or electronic comments will have the same weight and effect as oral statements presented at the hearings. ☹



Ground Water



On behalf of the Waste Management Program's Environmental Monitoring Team, we'd like to announce the release of the Spring 2005 edition of our GEMS newsletter. The newsletter will also be available on our web site in the near future at <http://www.dnr.state.wi.us/org/aw/wm/monitor/>

It is our team's goal to improve communication with those submitting environmental monitoring data to us. We'd appreciate any feedback you have about the newsletter or information you'd like us to cover in future issues.

We hope you find the information in the newsletter helpful. For further information, please contact either of the following:

- Janet Battista, GEMS Newsletter editor (608) 275-3292
- Jack Connelly, Environmental Monitoring Team leader (608) 267-7574

Spring 2005 Table of Contents

Reminders:

- GEMS data submittal reminders
- Maintaining monitoring devices

Notices:

- Use "dissolved" parameter codes for low-flow pumping results
- Why GEMS parameter code numbers occasionally change
- New parameter codes for Diallate
- New units for nitrogen in gas

Articles:

- Proposed Code Changes to Affect Environmental Monitoring
- New List of Semivolatile Organic Compounds (SVOCs) to use when contracting with labs. SVOCs
- Pesticides at Landfills - Study Update
- How to Modify the Assessment Monitoring List of Required Substances

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Cross Media Issues

Reporting Low-level Mercury Results

By Tom Mugan and Camille Johnson

DNR identifies mercury as one of the substances that must be reported to the detection limit*. Results between the limit of detection (LOD) and limit of quantitation (LOQ) should be qualified appropriately. Most compliance programs require that laboratories report their LOD and LOQ with the analytical results.

Generally, "no detects" are unacceptable. For wastewater permit compliance, the rules (NR 106.145(10)(b)) specify that reported results must be above the laboratory's quantitation limit unless the concentration is below 1.3 ng/L (the lowest water quality criterion in NR 105, Wis. Adm. Code). In other words, non-detects or qualified results for concentrations between LOD and LOQ are acceptable only if the concentration is below the water quality limit.

In addition to sample results, two types of blanks must be reported with results, field blanks and method blanks. Department staff evaluate blank results as part of their data quality assessment and compliance determinations. **Permittees must report results of field blanks to the Department on Discharge Monitoring Reports.** ⌘

Correcting Low-Level Mercury Results for Blanks

By Tom Mugan and Camille Johnson

Method blank concentrations may be subtracted from sample results unless concentrations of mercury exceed the greater of the laboratory's LOD, 0.5 ng/L, or 5% of the sample result. Remember that method blank concentrations must be reported whether or not sample results are corrected.

Field blank results must not be subtracted from sample results.

***Note:** *The wastewater permits program requires that permittees report numerical values for all monitoring results greater than the limit of detection unless analyte-specific instructions in the WPDES permit specify otherwise.* (NR 106.14(3)) ⌘

Drinking Water

Electronic Reporting Update

Reminder: All SDWA-certified labs will be required to report all public drinking water compliance data to the DNR using an electronic reporting method approved by the Department. The DNR's web-based data entry form is in the final testing phase and we expect that it will be available for labs to use in early June. A number of labs have already been successful in sending data to DNR using an electronic file transfer process. For more information on electronic reporting, check out the "Latest News" at:

<http://www.dnr.state.wi.us/org/water/dwg/index.htm>

If you have any questions, please contact Gail North at (608) 264-6131 or northg@dnr.state.wi.us. ☞

Department discourages use of ICP for testing Arsenic in drinking water

By Carol McCurry and Rick Mealy

Due to the impending lowering of the MCL for arsenic (effective January 2006), ICP methods (EPA 200.7 and Std Method 3120B) will not be approved for compliance testing effective with the revised MCL. In fact, municipalities that have their requisite 2005 compliance monitoring performed using procedures that will retain approval (graphite furnace or ICP/MS) will be "grandfathered" and will not have to repeat monitoring in 2006.

That means that any municipality whose arsenic testing is performed using ICP methods during 2005 will be required to repeat the analysis using one of the approved procedures in 2006. An excerpt from the EPA's official guidance document (Office of Water (4606M) [EPA-816-K-02-018, August 2002] appears below:

What data may groundwater systems be allowed to grandfather?

For ground water systems, the term "grandfathered data" refers to monitoring samples collected between January 1, 2005, the start of

the first compliance period for ground water systems for the revised MCL, and January 23, 2006, the compliance date for the revised MCL. Because January 23, 2006, falls in the middle of a compliance period, States may allow systems to use grandfathered data collected after January 1, 2005, to satisfy the sampling requirements for the compliance period.

States may allow systems to grandfather ground water data under the following:

- The system collects its sample for the 2005-2007 compliance period between January 1, 2005 and January 23, 2006; and,
- The data are consistent with the analytical methodology approved for use by the January 22, 2001 Final Rule.

Data collected using inductively coupled plasma atomic emission spectroscopy (ICP-AES) technology are not eligible for grandfathering. EPA has determined that these methods are not adequate to reliably determine the presence of arsenic at 0.010 mg/L, because the detection method limits are .008 mg/L or higher (40 CFR 141.23(k)(1)). For more information, refer to:

www.epa.gov/safewater/ars/pdfs/regguide/ars_final_main_guide_9-13.pdf ☞



Bio-monitoring

New rules go into effect June 1, 2005

The rule revisions to incorporate the 2nd edition of the "State of Wisconsin Aquatic Life Toxicity Testing Methods Manual" are complete. Revisions to chs. NR 106, 149, and 219, Wis. Adm. Code, are expected to be effective on June 1, 2005. For further information about this change see the LabCert website:

www.dnr.state.wi.us/org/es/science/lc/whatsnew.htm

Work has also begun on re-tooling the WET webpages:

<http://dnr.wi.gov/org/water/wm/ww/biomon/biomon.htm>, which will eventually include links to the new Methods Manual, the latest revision to the WET Guidance Document, and other items of interest. For additional information, contact Keri Fleming, Bio-Monitoring Coordinator, at : (608) 267-7663 or Kari.Fleming@dnr.state.wi.us. ☞

Wastewater Forum

BOD Holding Time

by Camille Johnson

Holding time for biochemical oxygen demand samples is 48 hours post composite (kept at 6°C from start until analysis set up). Facilities need to consider timing their sample collection to allow laboratories to meet required holding times. For example, Friday samples that are set up on Monday are being set up too late. Samples will have to be qualified to show that hold times were exceeded which is particularly significant in regards to BOD samples. Commercial laboratories will be encouraged to refrain from routinely and consistently accepting and analyzing samples when they know that their work schedules and/or business hours will not permit them to meet holding times. ☞

Importance of Using a Representative Sample Aliquot...

... particularly with the Hach Total Phosphorus Test and Tube Procedure

by John Condron

I have observed that many people are unknowingly not using a representative sample for total phosphorus analysis using the Hach Test N' Tube® procedure.

If you were looking to sample your child's hot fudge sundaes, you wouldn't use one of those disposable coffee stirrers, would you? I thought not....you'd use the biggest serving spoon you could locate!

Well, a similar concept must be employed with total phosphorus using the Test N' Tube® procedure. The larger the aliquot of sample you use for testing (or dilution), the more representative the aliquot will be of the original sample.

We strongly encourage labs to consistently use 5 mL of sample in the glass vials for total phosphorus of your effluent sample. How can you do this if the concentration of the total phosphorus effluent is too strong (i.e., above

the calibration range)? The answer is to perform an accurate preliminary dilution using class "A" volumetric glassware. For example, if a 5-fold dilution is needed, one could use a 20 mL class A volumetric pipet to pipet 20 mL of sample into a 100 mL class A volumetric flask and then dilute to volume with reagent water. (*Of course the flask must be thoroughly mixed and the appropriate sized cap must be used to prevent spilling and contamination.*). Five (5) mL of this diluted sample could then be used for analysis in the Hach Test and Tube.

While one could certainly obtain an equivalent 5-fold dilution by pipetting 1 mL of sample and diluting to exactly 5 mLs with reagent water, the use of a larger volume provides for a 20-fold increase in sample representativeness.

Direct any questions to John Condron, Greater Southeast Region Certification Officer at (608) 267-2300. ☞

EPA Releases Sediment Methods Compilation

The EPA has released a compilation of sediment methodology. It is available at the following:

<http://www.epa.gov/nerleerd/108Complete.pdf> ☞

Biosolids Form Available

DNR forms associated with biosolids (sludge) are now available on the DNR website at:

<http://dnr.wi.gov/org/water/wm/ww/biosolids.htm>. ☞

The following forms are available with this initial set:

- Form 3400-52 - Other Methods of Disposal or Distribution Report
- Form 3400-53 - Land Application Site Request
- Form 3400-54 - Agricultural Site Worksheet (Appl. Rate Calculations)
- Form 3400-55 - Annual Land Application Report
- Form 3400-56 - Land Application Records Worksheet ☞

DMR Insert Apr.-Jun. 2005

BOD Holding Time Requirements

The Department has become aware that some facilities routinely report BOD results from samples that exceed the 48-hour maximum holding time required by rule. In some cases, contract laboratories performing the tests are unable to set up the tests in time because they are not staffed on weekends. It is a permittee's responsibility to make sure that samples get to the laboratory in time to meet the holding time requirements. This may mean that you avoid collecting samples on Friday or on weekends.

Biological and chemical changes to a sample can occur between the time of sample collection and analysis even if the sample is kept refrigerated. These changes can make test results less reliable and cast doubt on the facility's compliance with permit limits. In order for BOD test results to be considered reliable for determining compliance with WPDES permit limits, the samples must be prepared for incubation no more than 48 hours after collection. The holding time starts at the **end** of the compositing period (See s. NR 219.04(2), Wisconsin Administrative Code). We recognize that samples may occasionally exceed holding times due to various unforeseen circumstances. In these cases, the sample results should be appropriately qualified on both the report you receive from the laboratory and the DMR that you submit to DNR. However, under no circumstances should a laboratory routinely and consistently accept BOD samples if it can not begin analyzing the samples within 48 hours of collection. If your laboratory is unable to meet holding times and does not initiate the communication needed to correct the problem, you must take action.

Please check with your laboratory to make arrangements that will insure that holding time requirements will be met. You may need to change your schedule for collecting samples, transport samples more quickly or contract the services of another laboratory. A list of laboratories certified to perform testing in Wisconsin is available online at <http://dnr.wi.gov/org/es/science/lc/INFO/Lablists.htm>. If you do not have internet access, you can obtain a copy by calling the Laboratory Certification Program at (608) 267-7633.

How to Report WET Results

Whole effluent toxicity (WET) test results must be submitted in two formats. Please be sure to send each of these forms to the appropriate addresses.

- Test results must be summarized on the Discharge Monitoring Report, which is sent to the DNR Regional office (address found on the last page of the DMR).
- More detailed results must be submitted on the 4-page WET Test Report Form to

Biomonitoring Coordinator, WT/2
101 S. Webster Street
Madison, WI 53707-7921

DMR Insert March 2005



The State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES



Hereby grants

Wisconsin Certification under NR 149

under the provisions of ch. NR 149, Wisconsin Administrative Code to:

ACME Laboratories
4501 Roadrunner Ave
Embarrass, WI 54444

Lab ID Number:

Issued Date: June 1, 2005

Expiration Date: August 31, 2005

for the following test categories:

- * Safe Drinking Water
- Alachlor- EPA 525.2
- Arsenic- SM 3113B 1819
- Atrazine- EPA 525.2
- Bis[2-EH]adipate- 525.2
- Bis[2-EH]phthalate- 525.2
- Barium- EPA 200.7
- Beryllium- EPA 200.7
- Bromate- EPA 300.1
- Benzo(a)pyrene- EPA 525.2
- Cadmium- EPA 200.7
- Chlordane- EPA 505
- Cyanide- EPA 335.4
- Carbofuran- EPA 531.1
- Chromium- EPA 200.7
- Copper- EPA 200.7
- Copper- SM 3111B 1819
- DBCP- EPA 504.1
- Decachlorobiphenyl- 508A
- EDB- EPA 504.1
- Endothall- EPA 548.1
- Fluoride- 4500F- C 1819
- Fluoride- 4500F- C 20
- Glyphosate- EPA 547
- Haloacetic Acids-EPA552.2
- Hexachlorobenzene- 525.2
- Hexachloropentadiene525.2
- Heptachlor- EPA 525.2
- Mercury- EPA 245.1
- Heptachlor epoxide- 525.2
- Lindane- EPA 525.2
- Lindane- EPA 525.2
- Methoxychlor- EPA 525.2
- NO3+NO2- EPA 353.2
- Nitrite- 4500NO2- B 1819
- Nitrite- 4500NO2- B 20
- Nitrate- EPA 353.2
- Sodium- EPA 200.7
- Endrin- EPA 525.2
- Nickel- EPA 200.7
- Oxamyl [Vydate]-EPA 531.1
- Lead- SM 3113B 1819
- Antimony- SM 3113B 1819
- Selenium- SM 3113B 1819
- Simazine- EPA 525.2
- Sulfate- EPA 300.0
- TTHMs- EPA 524.2
- Thallium- EPA 200.9
- Toxaphene- EPA 505
- VOCs- EPA 524.2

Example Certificate

Showing new Drinking Water listings

David D. ...
Chief, Environmental Science Services

P. Scott Hassett
Secretary

Certification or registration by the State of Wisconsin is not an endorsement or guarantee of the validity of data generated by this laboratory. This certificate is valid unless revoked or suspended and supersedes all previous certificates.



LabNotes – Summer 2005, Volume 20, Issue 1

Wisconsin Department of Natural Resources

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P.O. Box 7921

Madison, WI 53707-7921

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