



Digester/Over the Spillway

"for optimum operation/maintenance of all water and wastewater facilities" Vol. 66 - No. 1 Winter/Spring 2007

Robbie Lawrence, age 9, of Pekin is Honored with Governor's PATH Award

"Littlest Lobbyist" is Also Hero To His Neighbors For Helping Get Better Water

The water from the shallow private well serving his home in the subdivision of Meadow Lawn in Pekin "tasted and smelled bad", as did that of his neighbors, so Robbie Lawrence decided to make it the subject for a story called "Ugly Water" for Mrs. Marj Oesch's second-grade class at Starke Elementary School.

The story concluded: "It looks bad. It smells like rotten eggs. You don't want to drink it, folks."

It so impressed the class that it became the basis for another project in which the students created "Valentine's Day cards" for Governor Rod Blagojevich, asking for his help in getting better water for Robbie and his neighbors in Meadow Lawn.

Robbie and his grandmother, Sandra Jones, went to Springfield on Feb. 15, 2006, and presented the cards personally to Governor Blagojevich in his Statehouse office. Robbie, then age 8, and dressed in his Cub Scout uniform because he thought it would "look professional," gave a presentation to the Governor and showed him a jar of the murky water. After the meeting, the Governor asked Illinois EPA Director Doug Scott to find a solution to the community's water

problem. Although the community did not fit into traditional loan or grant programs, a \$120,000 grant was made available to Elm Grove Township through the Environmental Protection Trust Fund,

(Continued on Page 2)

IN THIS ISSUE

City of Aurora wins water taste contest	3
Aurora receives watershed protection grant	4
Corporate Environmental Stewardship Award launched	5
SCALE Program celebrates 5th year of riverbank and lakeshore cleanups	7

Operator News:

25th Graduation Ceremony Held at Environmental Resources Training Center	8
Drinking Water Filters	9
Filtration Math Quiz	10
IPWSOA Fall Conference	6
Water Supply Operator Certification Exam Passes	14
Wastewater Operator Certification Passes	12
Bureau of Water Annual Hearing Set	16

Robbie Lawrence “Littlest Lobbyist”

(Continued from Page 1)

which primarily comes from fines and penalties that come in during the year. The grant allowed the township to run water mains to the homes in Meadow Lawn and connect them to a Pekin municipal water supply line that was 1,200 feet from the subdivision. Illinois American Water Company, which supplies Pekin, also picked up some of the cost to assist the area.

The families in the subdivision, which include homeowners on Social Security or other limited incomes that would otherwise have had a hard time paying for the municipal water connections, now enjoy clear water, without the high iron and manganese content from the private wells that caused the water to often discolor to a dark brown. One of the first things that many of the residents did was go out and buy washers and dryers, which they couldn't use before because the well water would discolor their clothes.

Robbie's grandmother, Sandra Jones, who has previously embarked on a letter-writing and petition campaign to help the subdivision, said she couldn't have been prouder of her grandson. “It's been a great lesson for young people to be unselfish and do good for others—and we learned about conservation, government and the environment.”

Added Robbie's teacher, Mrs. Oesch: “Robbie is a very thoughtful student who is really interested in science and the social sciences and, as a result of his crusade for his neighborhood, the entire class learned about government, the environment, persuasive writing and most importantly how to affect their community.”

“From clean water to life lessons, we've gained so

much from the project in general,” added Robbie's mother, Lisa Lawrence.

While Robbie became something of a local media celebrity, and was dubbed “The Littlest Lobbyist,” he was in the spotlight even more last November 1, when Director Scott came to Starke School to present the Governor's PATH (People are Today's Heroes) Award to Robbie in honor of his efforts to obtain clean water for his subdivision.

“The appeal that he made was a very honest and straightforward one. Robbie did more than most adults do—he went to Springfield and actually made something happen,” noted Director Scott.

Noting that Robbie was the youngest PATH Award winner, Director Scott added that: “I know all of the neighbors of Robbie and his mom, Lisa, who live along Allentown Road, think of Robbie and his classmates as real heroes every time they turn on the tap and get safe public water and no longer have to worry

about getting dirty, smelly water or no water.”

“I commend Robbie for bringing this to my attention. Robbie is a remarkable example of how much one person, no matter what age, can accomplish when they put their mind to it,” said Gov. Blagojevich in a statement.

With wisdom beyond his years, Robbie modestly accepted his award, giving credit to “my team—everyone in this room was part of a team.”

Deftly handling TV interviews, the nine-year-old reminded reporters that “people can represent each



Robbie Lawrence shows off his Governor's PATH Award for his efforts to get community drinking water to his neighborhood.

(Continued on Page 3)

Robbie Lawrence “Littlest Lobbyist”
(Continued from Page 2)

other and help each other” and smiling, described the water at home now as “the best I ever tasted.”

“It’s been fun and my mom can now take long showers and it’s just overwhelming for me to get the award,” Robbie said in another interview.

Later in the day, Robbie and his family were honored again at a dinner put on by their neighbors and other friends.

In January, Robbie and the other Governor’s PATH Award winners were invited to be special guests for the Inaugural Ceremony and Ball. He was joined by

his mother and grandmother. In an interview with a reporter for a local newspaper, Robbie noted that all of the state officials being sworn in mentioned the word “service.”

Later that evening at the Inaugural Ball, Robbie traded his Cub Scout uniform for a full tuxedo and boutonniere.

More recently, in April, Robbie received yet another honor as the youngest recipient ever of the Clean Water Celebration/Rivers Project Award in Peoria.

City of Aurora Wins 2007 ISAWWA Water Taste Contest

In the 13th annual Water Taste Test, a popular feature of the Illinois Section American Water Works Association Annual Conference in Springfield, tap water from the City of Aurora was judged to have the best taste.

At the conference in March, Aurora competed with last year’s winner, Illinois American Water Champaign District; Mattoon Water Plant, winner of the 15 County Water Supply Operators Association water taste contest; and Lake Wildwood Facility, winner of the Illinois Utilities Inc. water taste contest.

A drinking water sample, produced by each of the four public water supplies, was submitted and evaluated by a panel of local judges on water clarity, odor and taste. This year’s judges were Kathryn Rem, Food Editor and Staff Writer with the State Journal Register (Springfield), Pamela Weber, Legislative Consultant, and Bill Child, Bureau of Land Chief for Illinois EPA.

Once the scores were tallied, the City of Aurora was awarded best water produced in the State of Illinois for 2007 and is now eligible to compete in this year’s annual American Water Works taste contest in Toronto, Canada, for the title of best water produced

in North America. In addition, Aurora will be eligible to defend its state title next year.

The annual ISAWWA Conference also featured other traditional competitions that combined fun and professional skill displays— “Top Ops” “Meter Madness,” and “Water Tapping Contest.”

On the more serious side, it also included 78 technical presentation sessions and an operators’ pre-conference half-day workshop on phosphates.

Digester/Over the Spillway

Published by the
Illinois EPA Bureau of Water,
Division of Public Water Supplies
and Division of Water Pollution Control.

Editor Dennis McMurray
Layout & Design Rusty I. Downs
Contributors Jewel Brant, Nina Dugger
Bob Voss, Bob Wiatrolik

Aurora Receives \$300,000 IEPA Grant for Stormwater Management Project

Illinois EPA Director Doug Scott announced a \$300,000 grant on April 21, which will help clean up the Fox River area in downtown Aurora by the use of an innovative Stormwater Wetland. Director Scott presented a ceremonial check to Aurora Mayor Tom Weisner and Chicago Metropolitan Agency for Planning Executive Director Randall Blankenhorn as he applauded their efforts toward improving the community. The grant is administered by the Illinois EPA through a Section 319 Clean Water Act Nonpoint Source Pollution Prevention Grant and given to the city to be used for watershed best management practices along the Fox River and Indian Creek in Aurora.

The announcement took place on the Fox River Trail next to a massive illegal dump site historically referred to as Kiddie Kar, located at 412 North Broadway and adjacent to both the Fox River and Indian Creek. In addition to being a threat to these two bodies of water, the site has been an eyesore and a hindrance to development in the area. Approximately 39,000 cubic yards of waste, including tens of thousands of tires, roofing shingles, wood, other building materials and household waste, reaching 30 feet in height, existed when the cleanup began.

“The transformation underway in the City of Aurora is two-fold. It not only removes unsightly environmental hazards, but it will hopefully lead the way to an economic transformation for the community,” said Illinois EPA Director Doug Scott. “The City’s collaborative efforts, innovative use of resources and initiative they exhibited towards finding ways to clean up the City help make for a healthier environment and future economic opportunity, and serve as a good model for other cities in similar situations throughout the state.”

The \$300,000 Clean Water Act grant will be used to incorporate nonpoint source pollution and stormwater management into a large urban park. The key to the project will be designing and building a Stormwater Wetland, which will receive and treat

runoff from a 579-acre portion of the city before it is discharged to the river. The wetland will be designed to remove pollutants that are common in urban settings; it will enhance habitat, attract birds and



Aurora Mayor Tom Weisner (right) shows off a ceremonial big check for a \$300,000 grant for projects to improve the Fox River. He was joined by (left) Chicago Metropolitan Area Planning Commission Executive Director Randall Blankenhorn and IEPA Director Doug Scott.

wildlife; improve aesthetics of the park; and improve water retention.

Mayor Weisner provided an overview of the proactive and collaborative approach Aurora has taken to clean up a number of contaminated properties along the city’s riverfront. The two leaders unveiled the details of a new partnership of the Illinois EPA, City of Aurora and the Chicago Metropolitan Agency for Planning (CMAP) to further clean up and protect the riverfront.

“We have a responsibility to preserve and protect the Fox River for future generations,” said Mayor

(Continued on Page 5)

Aurora Receives \$300,000 IEPA Grant

(Continued from Page 4)

Weisner. “I want to thank the Illinois EPA and Governor Blagojevich for partnering with Aurora to implement new and innovative solutions to managing storm water and keeping our land, air and water clean.”

As part of their comprehensive approach to cleaning up the Fox River area, Aurora worked with the Office of Governor Rod R. Blagojevich, Illinois EPA and the Department of Commerce and Economic Opportunity (DCEO) to pass the River’s Edge Initiative and recently was the first Illinois city to qualify for a River’s Edge Development Zone designation from DCEO.

“The Fox River is the crown jewel of our region and this state grant to help clean the Aurora riverfront and Indian Creek area is good

news for not only our state’s second largest city but for the entire Fox River Valley,” said State Sen. Linda Holmes, D-Plainfield.

“This grant to use natural techniques to improve the water quality in the Fox River is another great step forward in the partnership the State and Illinois EPA have established with Aurora in cleaning up the Fox River and helping make it a great asset to our citizens,” said State Rep. Linda Chapa LaVia, D-Aurora.

“The Friends of the Fox River is pleased to hear of Aurora’s latest effort to improve the Fox River and increase the public access,” said Chuck Roberts, President of Friends of the Fox River. “Aurora has the Fox River running through the heart of its downtown and is actively embracing this wonderful resource.”

Bill Compton Corporate Environmental Stewardship Award Announced by Illinois EPA

Longtime Caterpillar Inc. environmental manager is first honoree

Illinois Environmental Protection Agency Director Doug Scott has announced creation of the *Bill Compton Corporate Environmental Stewardship Award* to recognize outstanding contributions to the environment by an individual or company, with the award’s namesake, retiring Caterpillar Inc. environmental manager Bill Compton, honored as the first recipient.

During his 32 years in Caterpillar’s Environmental Affairs Office, Bill Compton has been a leader from the corporate sector, working with Illinois EPA and other stakeholders in developing groundwater protection and air pollution control pro-



Longtime Caterpillar Inc. environmental manager Bill Compton (right) is congratulated by IEPA Director Doug Scott during the launch of an award for corporate environmental stewardship named in Compton’s honor.

grams.

“Bill Compton’s career has epitomized responsible corporate environmental stewardship and we could think of no one more fitting to honor by establishing this new award and naming it for him. We believe that Bill’s environmental stewardship is a model for the Illinois business and corporate community,” said Illinois EPA Director Doug Scott in presenting the

(Continued on Page 6)

Corporate Environmental Stewardship Award

(Continued from Page 5)

surprise award to Compton at a retirement reception Thursday, Feb. 15 in Springfield.

“Bill’s wealth of professional expertise in chemistry, occupational health, environmental management, and water supplies, his leadership in industrial and professional organizations, and his excellent negotiation skills have made a direct impact on the overall success of Illinois’ groundwater and air pollution control programs,” Scott added.

“Bill has provided a valuable service as a liaison between the IEPA and Caterpillar facilities, paving the way for positive relationships and win-win results for both groups. His leadership has led to emissions reductions and improvement in our environmental performance and his work to promote environmental stewardship at Caterpillar has been integral to our ongoing inclusion on the Dow Jones Sustainability World Index. Environmental excellence and sustainable development are key to Caterpillar’s business success, and we look forward to building on Bill’s legacy,” said Doug Oberhelman, Group President, Caterpillar, Inc.

“At Caterpillar, our people are our greatest asset, and hiring and selecting employees of the highest caliber are critical to our company’s success. Bill Compton has demonstrated Caterpillar’s values in action: integrity, teamwork, excellence, and commitment, throughout his career as an environmental manager. He has embraced, lived and shared the principles of preserving our natural resources with government, business and community alike. On behalf of Caterpillar, I thank the State of Illinois for recognizing Bill’s contributions,” said Ali Bahaj,

Corporate Auditing and Compliance Division Vice President, Caterpillar Inc.

Compton was previously awarded an Illinois EPA Environmental Excellence Award for his participation on the design team for the innovative Emissions Reduction Market System to reduce air pollutants that contribute to soot and smog. He also has been a leader from the business sector in groundwater protection efforts, and has served on the Governor’s Groundwater Protection Planning Committee, and serving as trustee and chairman of the Groveland Township public water supply and on the Tazewell County Groundwater Protection Committee.

His work has been honored with the National Groundwater Association’s *Groundwater Hero Award*, the Illinois Groundwater Association’s *Groundwater Science Award*, and an Illinois EPA *Certificate of Commendation* for leading the Pekin Wellhead Protection Team.

Compton has also served as Chairman of the Executive Committee and Environmental Affairs Committee of the Illinois Environmental Regulatory Group, an industry group representing many major Illinois companies that focuses on environmental issues.

In his work at Caterpillar, he has addressed environmental issues not just at the company’s many Illinois facilities, but has traveled the world consulting on environmental stewardship to the company’s international business operations.

The annual Illinois Potable Water Supply Operators Association Fall Conference will be held in Springfield at the President Abraham Lincoln Hotel and Conference Center from September 12-14, 2007. Registration forms have been mailed and all certified operators and members of IPWSOA should have them. However, if someone needs a registration form, they can be accessed on the web at www.ipwosa.com or by calling 217-652-1869.

Illinois EPA's SCALE Program

Celebrates Fifth Year of Assistance to Local Stream and Lake Cleanups



Families and neighbors join in to volunteer at hundreds of lakeshore and streambank cleanups across Illinois, with grant assistance from IEPA.

Illinois EPA Director Doug Scott has announced that 28 grants ranging from \$500 to \$3500 have been awarded to assist 2007 local cleanups of streambanks, riverbanks and lakeshores under the Illinois EPA's Streambank Cleanup and Lakeshore Enhancement (SCALE) Program.

The grants are from funds IEPA receives from Section 319 of the federal Clean Water Act to prevent nonpoint source pollution. This marks the fifth year a portion of 319 funding has been used for SCALE.

"These groups work locally to improve our streams and lakeshores. Their efforts demonstrate a grassroots approach to protecting our environment," said Director Scott. "The funding will make it easier for them to do that by helping with expenses like safety attire, litter bags, dumpster rentals or landfill fees and other costs they previously had to meet on their own."

Since 2003, 66 groups have held at least one SCALE event with a total of \$185,500 in grant assistance from IEPA. They have held more than 180 events that involved more than 44,000 participants. Together they collected over 2,200 tons of garbage from nearly 3,000 miles of streambanks and 22,000 acres of lakeshore.

**The recipients,
grant amounts
and benefiting waterways
for the 2007 SCALE grants are:**

**Three applicants were approved
for grants of \$3,500 each:**

- Friends of the Illinois River, for the Illinois River Watershed
- Friends of the Chicago River, for the Chicago River
- ORSANCO, for the Ohio River and tributaries

Eight applicants will receive \$1,750 each:

- Alliance for the Great Lakes, for Lake Michigan
- Fox Waterway Agency, for the Fox River and Chain O'Lakes
- Friends of the Parks, for multiple Chicago Parks sites
- Northern Illinois Anglers Association, for the Kankakee and Iroquois rivers
- Friends of the Fox River, for the Fox River and tributaries
- Living Lands and Waters, for the Mississippi River
- The Conservation Foundations, for the DuPage River, Salt Creek and tributaries
- Thorn Creek Restoration Coalition, for Thorn Creek

Designated for \$1,000 grants were:

- Jo Daviess Conservation Foundation, for the Mississippi River, Pool 12
- Lower Kaskaskia Stakeholders, Inc., for the Kaskaskia River
- Salt Fork River Partners, for the Salt Fork River
- Village of Northbrook, for the North Branch Chicago River

(Continued on Page 8)

Illinois EPA's SCALE Program

(Continued from Page 7)

Receiving \$500 grants:

- Hegewisch Chamber of Commerce, for Wolf Lake and Indian Creek
- Illinois Smallmouth Alliance, for the Kankakee River
- Valley of the Fox Sierra Club, for the Fox River
- Vermilion County Soil and Water Conservation District, for Lake Vermilion
- Youth Conservation Corps, for the Des Plaines and Waukegan Rivers and Lake Michigan
- Boone County Conservation District, for the Kishwaukee River 30
- Dixon Park District, for the Rock River
- Friends of the Sangamon Valley, for the Sangamon River
- Keep Salem Beautiful, for the Salem City Reservoir
- Kennedy High School Canoe Club, for the Des Plaines River
- Round Lake Management Commission, for Round Lake
- The National Great Rivers Research and Education Center, for the Piasa Creek
- Village of Lake Ka-Ho Board of Trustees, for Lake Ka-Ho, Macoupin County

Of these, 13 groups have been successful recipients of SCALE grants for all five years of the program. They are:

Alliance for the Great Lakes (Lake Michigan Federation), Boone County Conservation District, Friends of the Chicago River, Friends of the Fox River, Friends of the Illinois River, Illinois Smallmouth Alliance, Keep Salem Beautiful, Living Lands and Waters, Lower Kaskaskia Stakeholders, Inc., Northern Illinois Anglers Association, ORSANCO, Salt Fork River Partners and The Conservation Foundation.

The application deadline for the next group of SCALE grants is November 30, 2007. Visit Illinois EPA's website at www.epa.state.il.us for additional information.

25th Graduation Ceremony Held at Environmental Resources Training Center

In July of 2006, the Environmental Resources Training Center (ERTC) at Southern Illinois University Edwardsville held the commencement for its 25th graduating class in the Water Quality Control Operations program. The one-year program includes instruction in wastewater and drinking water treatment operations, laboratory methods, water math, and mechanical and electrical maintenance. At the end of the program, the graduates are qualified to take their tests for Illinois Class D and C Drinking Water Operator and Class 4 Wastewater Operator certification, along with the Missouri Class D Drinking Water and Class D Wastewater Operator certification. There have been many graduates of the program in the last 25 years, who now work in all facets of the water treatment industry in Illinois and throughout the nation.

The dignitaries present were Mike Garretson of IEPA, Marty Reynolds of the Village of Roxana, Dallas Matlock of the City of Edwardsville, Richard Justice, a contract operator, Andy Curry, engineer with Curry and Associates, and Bernard Waxman, Acting Dean of the School of Engineering at SIUE.

Each year the staff of ERTC selects a person who has a history of promoting and supporting the educational programs at the training center and the water industry as a whole. In 2006, the ERTC Distinguished Service Award was presented to Mike Garretson of the Illinois EPA. Mike has worked at IEPA since 1979 and is currently the Manager of the Compliance Assurance Section of the Bureau of Water at the agency.

Filters

INTRODUCTION

The goal of all drinking water operators is to produce sparkling clear water and filters help them accomplish that goal. Filters remove turbidity by removing fine particles, oxidized metals, and microorganisms.

The most interesting property of a filter is its ability to remove suspended particles that are smaller than the openings between the filter media. The particles are removed using one or more of the following processes: straining, adsorption, sedimentation, flocculation, and biological action. The most obvious process is straining where the larger particles become lodged between the grains of the media. However, adsorption may be just as important because it has the ability to remove smaller particles. Adsorption works by attracting the smaller particles and causing them to adsorb or stick to the individual grains of the filter media.

The flocculation and sedimentation that occur in the filter utilize gravity to remove the suspended particles. Particles are also removed as they are trapped by a biological film or mat that grows within the upper portion of the filter media.

TYPES OF FILTERS

Filter types are classified by rate of filtration and by media type. Filter types are gravity and pressure and are classified as:

Gravity Filters

- Slow Sand
- Rapid Sand
- Dual Media
- Multimedia

Pressure Filters

- Sand
- Multimedia

GRAVITY FILTERS

In gravity filters the water moves through the medium using the natural force of gravity. Slow sand filters have a filtration rate of around 0.05 gpm per

square foot of media. They use a nonstratified (no layering) sand as media, with filter runs of 20 to 60 days. The head loss ranges from 0.2 feet initially to four feet at the end of the run. The efficiency of the slow sand filters relies on a sticky, biological film (the Schmutzdecke) to be established on the fine sands in the upper portion of the filter bed. During the filter start-up, the operator should keep the flow rates very low for the first two weeks, to allow an effective Schmutzdecke to form. Cleaning of a slow sand filter requires the removal of the Schmutzdecke along with the upper one or two inches of sand.

Rapid sand filters have a filtration rate of 2 gpm per square foot of media. The media is stratified sand, which has a finer layer at the top, grading to the coarsest at the bottom of the filter bed. The filter runs range from 12 to 36 hours, with head losses ranging from 1 foot initially to 9 feet at the end of the run.

The dual and multi media gravity filters have a filtration rate of 3 to 8 gpm per square foot of media. The dual media consists of sand and coal (anthracite), while the multimedia filter has coal, sand, and garnet. The media is stratified with the coal at the surface, garnet at the bottom, and sand in between. They are similar to rapid sand filters, with filter runs that range from 12 to 36 hours, with head losses ranging from 1 foot initially to 9 feet at the end of the run.

PRESSURE FILTERS

Pressure filters are constructed of a sealed cylindrical tank that can be pressurized. The water is forced through the media using the pressure developed by a pump or an elevated tank. Pressure filters are

(Continued on Page 10)

Filters

(Continued from Page 9)

used to remove oxidized metals and flocculants from groundwater. Stratified sand or stratified multimedia is used in pressure filters, with filtration rates similar to rapid sand filters. The maximum filtration rate is 3 gpm per square foot of media. Since the filter media is sealed within the steel tank, the operator cannot observe its operation. One method to check the operation of the filter bed is to continuously monitor the pressure gauges, and once terminal head loss is attained, back washing should begin.

BACKWASHING

Backwashing of the filters is one of the most important procedures associated with the operation and maintenance of a filter bed. During filtration, media becomes clogged and coated. To clean the media, finished water is forced through the underdrains and upward through the filter bed. The flow rate of the backwash water must be high enough to suspend the media, causing the grains to bounce off each other and clean themselves. The dirty water is collected and wasted as it overflows from the top of filter into a collection system. Backflow rates should be around 15 gpm per square foot of filter.

BACKWASHING AIDS

To improve backwashing efficiency, several devices are used. These include: hydraulic agitators, mechanical rakes, and compressed air. The hydraulic agitators use high-pressure water jets to scour the sand particles in the dirtiest, upper portions of the filter bed. A mechanical rake uses the tines of the rake to move and agitate the sand particles during the backwashing, helping to clean the dirtiest, upper portions of the filter bed. Compressed air is injected into the underdrain system along with the backwash water to help suspend and agitate the media in the entire filter bed, referred to as air scouring or air washing.

WHEN TO BACKWASH

There are three factors to be considered when deciding when to backwash your filters. These are head loss, turbidity of effluent, and length of filter run. A filter should be backwashed when any of the following have been observed:

Terminal head loss has occurred (around 8 feet of head loss) and the filter flow has been reduced below the desired rate.

Increases in turbidity caused by a break-through of floc through the filter media.

The maximum run time for the specific filter has occurred.

The operator should keep all three factors in mind when determining the time to backwash the filters. However, an increase in turbidity should never be allowed to occur.

FILTERS, TURBIDITY, AND SURFACE WATER TREATMENT REGULATIONS

Surface water treatment rules require turbidity to be at less than 0.3 NTU in 95 per cent of monthly samples and turbidity should never exceed 1 NTU. To ensure that the turbidity regulations are not exceeded the operator should remove the filter from service if the turbidity values approach 0.3 NTU. Surface water systems that belong to the Partnership for Safe Water, voluntarily meet a turbidity level of 0.1 NTU or less.

The IEPA design requirements for filter rates are provided below. Proper operation of the filters to meet these requirements will help ensure that the quality of the finished water is sparkling clear.

(Continued on Page 11)



Filters

(Continued from Page 10)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE F: PUBLIC WATER SUPPLIES
CHAPTER II:
ENVIRONMENTAL PROTECTION AGENCY
PART 653
DESIGN, OPERATION AND
MAINTENANCE CRITERIA
SUBPART A: DESIGN REQUIREMENTS

Section 653.116 Filtration Rates

- a) The nominal filter rate for single and multi media rapid rate gravity filters shall be 2 gal/min/sq ft.
- b) Nominal filtration rates may be increased to 3 gal/min sq ft. for single media filters and to 5 gal/min/sq ft for multimedia filters under the following conditions.
 - 1) continuous nephelometric turbidity monitoring and recording equipment is provided for each filter effluent individually or on a rotating basis; and
 - 2) surface wash equipment is provided.

Some Filtration Math Questions

1. A water treatment plant has three pressure filters. Each filter has a diameter of 5 feet. During 20 hours of plant operation, a total of 141,120 gallons was filtered through the three filters. What was the filtration rate in gpm/ft²?

- a. 2
- b. 5
- c. 10
- d. 20

2. During the 20 hour period, one of these filters was backwashed using 400 gpm. What was the backwash rate in gpm/ft²?

- a. 2
- b. 5
- c. 10
- d. 20

3. The water level in a gravity filter rises 9 inches in 15 seconds during backwash. The filter measures 15 ft. by 20 ft. What is the backwash rate in gpm/ft²?

- a. 3
- b. 15
- c. 22
- d. 36

4. A gravity filter is 25 ft. by 30 ft. When backwashed at a rate of 17 gpm/ft² and using 175,000 gallons, how many minutes will the backwash take?

- a. 8
- b. 14
- c. 17
- d. 22

5. With this filter in service for 24 hours at an average filtration rate of 1.7 gpm/ft², how many gpd will be produced?

- a. 2448
- b. 30,600
- c. 1,080,000
- d. 1,836,000

Answers:

1 = a; 2 = d; 3 = c; 4 = b; 5 = d

Operator News

... operator news ... operator news ... operator news ... operator news operator news ... operator news ...

June 1, 2006 through December 31, 2006 Passing Operators for Wastewater Operator Certification

Collection System

Bennett, Bradley M. – Urbana
Bliznick, Fred P. – Bolingbrook
Gornick, Nicholas C. – Joliet
Strawn, Ralph B. – Peoria
Thiede, Mark W. – Wooddale
Yagoda, Robert A. – Plainfield

Class 1

Dunn, Darrel J. – East Peoria
Gornick, Nicholas C. – Joliet
Haley, Michael R. – Bolingbrook
Hemmersbach, Joseph G. – Mokena
Hogg, Kyle J. – Caseyville
Kowalczyk, Don L. – Peru
Markko, Luke R. – Wauconda
Patzka, Frank J. – Batavia
Perra, Christopher – Test
Reininger, Jeffrey S. – Poplar Grove
Reynolds, Brett – Hillsboro
Rix, Jason M. – Marseilles
White, Herbert J. – Granite City
Ziesmer, Thomas R. – Channahon

Class 2

Baker, Wayne A. – Woodstock
Beanblossom, Thomas L. – Lawrenceville
Engle, Barry E. – Flagg Creek
Evans, John W. – Monticello
Fitzgerald, Toby S. – Mendota
Freund, James – Lake Barrington Shores
Griffin, David A. – Desota
Lawyer, Donald A. – Plano
Menninga, Nicholas J. – Downers Grove
Nohl, Joshua P. – Goodfield
Sunderlage, Bryan – Algonquin
Thurman, Anthony A. – Ridge Farm

Class 3

Briskey, Joseph R. – Elmhurst
Brown, Todd P. – Peoria
Crouch, Kelly L. – Granite City
Heron, Brandon K. – Fox Lake
Ingold, Jeff W. – Paxton
Isaacson, John L. – Princeton

Janes, Brandon J. – Davis Junction
Mason, Rhett D. – Charleston
May Jr., James – Hillsboro
McEvelly, Kevin – Joliet
Mumford, Michael J. – Polo
Nichols, Michael – Mattoon
Olson, Robert M. – Charleston
Peterson, Steve K. – Arthur
Potter, Kregg F. – Elmhurst
Rieger, Michael K. – Rock River
Schramm, Jacqueline – Wauconda
See, Thomas K. – Centralia
Sly, Nicholas A. – Gateway
Strebel, Raymond C. – Kankakee River
Workman, Brian D. – Clinton
Zwijack, Ryan T. – Aqua

Class 4

Anderson, Michael – Joliet
Benz, Frederick D. – Shipman
Briggs, Allan D. – Rock Falls
Bruce, James W. – Plainfield
Bunton, Michael E. – Mason
Burke, Michael T. – Joliet
Carnes, William C. – Blandinsville
Chaney, Jay W. – Flora
Crouch, Kelly L. – Granite City
Dacka, Michael A. – Fox River
Gray, Ken – Loraine
Grice, Nathan D. – Paxton
Harris, Sam – U.S. Pen
Hemker, Eric J.
Henry, Clayton – Galesburg
Huber, Philip J. – Dieterich
Huelsmann, Glenn F. – Grantfork
Kitson, John S. – Rock Island
Klinkner, Joseph D. – Libertyville
Kuhl, Keith W. – Mason
Leathers, Jerrod R. – Mt. Vernon
Lightle, Gary G. – St. David
Mahan, Alan
McElhinney, Christopher W. – Poplar
Grove
McHatton, Neil A. – Inactive
McRae, Randy – Rock River
Nielsen, Dody Z. – Newton

O'Dell, Patrick E. – Mason
Potthast, Brandon R.
Rieger, Michael K. – Rock River
Robertson, Paul W. – Inactive
Rohrscheib, Tom R.
Russell, Johnny L.
Schaubert, Matthew R. – Salem
Shane, Timothy L. – Riverton
Shanks, Aaron L. – Paris
Shuey, Donald W. – Gillespie
Smith, Cory D. – Aqua Illinois
Stika, Christopher B. – DeKalb
Stock, Kenneth R. – Geneseo
Susner, Thomas C. – Minooka
Swenson, Dane E. – Addison
Thompson, James D. – East Peoria
Turrisi, Jeremy M. – New Lenox
Weilmuenster, Richard R. – Caseyville
Woods, Barbara J.
Woodside, Ashley N.
Workman, Tony J. – Mason
Zollar, Randall R. – Rock River

Class K

Akins, Kenneth E. – M & M
Mars/Masterfoods
Amaro, David E. – Perfection Plating
Anderson, Derek D. – Pella Corporation
Anfenson, Dane A. – Accellent
Endoscopy
Bank, Brian L. – Dixline Corporation
Bayon, Juniebenn S. – Abbott Labs
Becker, John D. – Coil
Bima, Jerome – Bay Valley Foods
Blake, Gerard – O & K American
Blue, Nick C. – Dynachem, Inc.
Bogran, Homer – Nickel
Composite Coating
Boyer, John D. – Otto & Sons
Brimeyer, Jeffrey M. – Continental
Bruhn, Curtis R. – Alton Steel
Burlingame, Joe P. – Livingston
County Landfill
Castellanos, Michael – Power Packaging
Clark, Daniel A. – CAT
Clark, Darin W. – ICI Uniqema

Clemons, Stephanie L. – Alpharma
 Cox, Karen M. – PMP Fermentation
 Cox, Zoe L. – Exelon
 Crecchio, Greg L. – Stack on Products
 Davis, Donnie R. – Lonza, Inc.
 Dehlin, Tory P. – CAT
 De Los Santos, Pablo – Greenlee Textron
 Genoa
 Diazsandi, Licurgo E. – Poly One
 Corporation
 Drane, Paul – Apple Canyon Property
 Eaker II, Paul J. – Flint Hills Resources
 Eertmoed, Wes R. – Hanna Steel
 Flammini, Frank A. – Exelon
 Flores, Priscilla – Chicago O’Hare Int’l
 Ford Jr., Walter – Cooper B Line
 Frantz, David E. – Hanna Steel
 Ganzel, Larry A. – Rockwell
 Garcia, Rodolfo – Sterling Plating
 Garduno, Juan C. – Ibiden Circuits of
 America
 George, Shyla A. – Nickel
 Composite Coating
 Giertz, Michael J. – Holland Energy
 Glab, Russell – West Town Plating
 Grzyb, Christopher – Chicago
 O’Hare Int’l
 Haas, Walter L. – PMP Fermentation
 Hansen, Norman L. – Alpharma
 Hanson, Edward H. – Nu Sci Laboratories
 Harper, Jason W. – CAT
 Haug, Joe L. – Flint Hills Resources
 Heinbaugh, Mark A. – Royster Clark
 Holm, Kory G. – Coral Chemical
 Hook, Ryan N. – Arlington Plating
 Howard, Laurentio D. – Union Pacific RR
 Hoying, Ingrid C. – Accellent Endoscopy
 Hull, Thomas L. – Nu Sci Laboratories
 Hults, William H. – JLO Metal Products
 Huntington, Kenneth A. – Masterfoods
 Infante, Thomas J. – Castle
 Metal Finishing
 Janiec, Michael J. – Vita Food Products
 Jarrett, Stacey E. – Kuester
 Metal Finishing
 Jeffries, Kevin D. – Guardian West
 Jones, Edwin A. – Pella Corporation
 Kelley, Tony A. – Stack on Products
 Keltner, Raymond T. – Cus tom Culinary
 Klein, Anthony – Allwaste
 Container Service
 Knight, Randall L. – Exelon Generation
 Krippendorf, LeRoy R. – Apple
 Canyon Property
 Land, William N. – Bay Valley Foods
 Ligman, Robin M. – CAT
 Lockett, William M. – Georgia Pacific
 Mack, Brian J. – John Deere
 Maida, Joseph C. – Poly One Corporation
 Marksteiner, Mark W. – Alpharma
 Martin, Daniel L. – U.S. Standard Sign
 Mason, Terrence M. – O’Hare Int’l
 Airport
 McGrenera, Lawrence M. – Alpharma
 McKenna, Tim J. – Masterfood USA
 Mendoza, Manuel – Reliable Plating
 Mikliszanski, Yarek – Poly One
 Corporation
 Miller, Trevor J. – Power Packaging
 Munoz, Franciso C. – Dixline Corporation
 Murillo, Don – O & K American
 Nabor, Jim S. – Power Packaging
 Nelson, Sheila L. – Eaton Corporation
 Nerone, Charles P. – Dynegy Midwest
 Niesman, Michelle L. – Chicago
 O’Hare Int’l
 Olsen, Louis G. – Arlington Plating
 Olson, Jeremy P. – Viking Chemical
 Olson, John D. – Abbott Labs
 Padilla, Jose L. – Poly One Corporation
 Patel, Subhash D. – Star Electronics
 Patel, Vino D. – Star Electronics
 Pederson, Brian K. – PMP Fermentation
 Philip, Robert R. – Bay Valley Foods
 Poustovalov, Nikita – Electroplated
 Metal Solutions
 Pusser Sr., Ronald L. – Bay Valley Foods
 Rhodes, James M. – Pella Corporation
 Rincon, Tony – Electro Max, Inc.
 Rogers, Mona L. – Burlington Northern
 Ronning, Paul S. – Fermi Lab
 Salinas, David U. – Power Packaging
 Santiago, Mario J. – Accellent Endoscopy
 Schoch, Greg S. – WCR, Inc.
 Schumacker, Robert C. – Cooper B Line
 Selucky, George K. – W.R. Grace & Co.
 Sheridan, William D. – Poly One
 Corporation
 Shinn, James R. – Flint Hills Resources
 Short, Danny A. – CAT
 Sickler, Jeffrey L. – Power Packaging
 Sickles, Jamie J. – Nobert Plating
 Silva, Daniel R. – J & M Plating Plant
 Simon, Keith D. – Cooper B Line
 Simpson, John D. – Bay Valley Foods
 Sizemore, Walter – Dixline Corporation
 Smith, Donald L. – Greenlee Textron
 Spealman, John R. – Burlington Northern
 Thompson, Timothy A. – GE Plastics
 Tibbs, Billy J. – Saint Gobain Containers
 Trauscht, April L. – Interstate Brands
 Traut, Hans J. – Accellent Endoscopy
 Ukena, William J. – Quebecor World
 Uzella, Christopher D. – Bay Valley
 Foods
 Wallace, Mark A. – Atlantic Richfield
 Watson, Richard E. – Reliant Energy
 Wilcox, Teresa M. – John Deere
 Winter, Stephanie M. – John Deere
 Winston, Michael Scott – Burlington
 Northern
 Wright, Robert – Ibiden Circuits
 Zalewski, Leszek – O & K American
 Zbinden, Ronald A. – Cooper B Line

Class K-WR

Branch, Joseph A.
 Cailles, Christopher N.
 Kiechle, F. Scott

August 7, 2006 through May 7, 2007 Passed Exams for Water Supply Operator Certification

Class A

Alberda, Jr., Donald E. - Village of Winnetka
Bannon, Ronald M. - Village of Thornton
Barkei, Jeremy P. - Village of North Aurora
Beach, Bryan J. - Village of Sugar Grove
Bechtel, Michael E. - Decatur
Bessler, James W. - Bio-Tech
Branthaver, Mark D.
Cash, Troy F. - Illinois American – Peoria
Conley, Jeremiah D. - Park Forest
Davenport, Matt G. - CWLP
Ferguson, Timothy D. - EMC
Furlow, Anthony L. - Rend Lake Intercity Water
Hall, Jeffrey L. - Normal
Hammock, Harry D. - Village of Homewood
Harman, Ralph A. - Village of Glenview
Harvey, Keith A. - Village of Tinley Park
Havel, Eric J. - Village of Homewood
Heckman, Scott A. - Village of Woodridge
Hemrich, Bryan E. - Olney
Hildinger, Michael L. - Village of Lindenhurst
Jones, Norman Q. - Waukegan
Lee, Randy K. - Ottawa
Long, Gregory D. - Caterpillar Trail PWD
Lorenzen, Allen S. - Village of Tinley Park
Mancini, Joseph V. - Village of Homewood
McLaughlin, George S. - Village of Orland Park
McLaughlin, Patrick W. - Village of Orland Park
Mullen, Jr., Stephen K. - Village of Coal Valley
Nickias, James P. - Village of Lansing
Nix, Terry S. - Rend Lake Intercity Water
Perri, Anthony J. - Village of Glenview
Ramos, Eddie A.
Reese, Bradley D. - Village of Algonquin
Santiago, Miguel A. - Aurora
Schluchter, Sean R. - St. Charles
Sebek, Jeffrey N. - Jardine Water Facility – Chicago
Simonson, Paul S. - Village of Glenview
Smith, Andy R. - Waverly
Vohs, Jason J. - Spring Valley
Williams, Glenn C. - Illinois American – Woodridge
Williams, Michael - CWLP
Wiltermood, Joseph F. - Neoga
Zubor, Robert L. - Village of Antioch

Class B

Carney, James P. - Village of Lake in the Hills
Hildinger, Michael L. - Village of Lindenhurst
Kuebker, Brian P. - Village of Poplar Grove
McDonald, Craig A. - Loves Park
McElhinney, Christopher W. - Aqua Illinois – Lake County
O'Meara Matthew J.

Ratliff, Kenneth D. - Village of Greenview
Rick, Donald L.
Schoenhard, Jon H. - Utilities Inc.
Staat, Michael W. - Village of Lake in the Hills

Class C

Barkei, Jeremy P. - Village of North Aurora
Berschinski, Phillip L. - Village of Riverdale
Blacher, Donald R. - Village of Riverdale
Blust, Jeremy D. - Village of Wataga
Cates, James M. - Village of Westmont
Chambers, Leslie L. - Marion Fed. Prison
Chapman, Randy J. - Fox River Water Reclamation Dist.
Conley, Jeremiah D.
Correa, Lance J. - Village of Homewood
Counts, John M. - Village of Riverdale
Craven, John E. - Village of Frankfort
Davis, Samuel W. - Kincaid
Derbak, Jr., Greg I. - Village of Schaumburg
Durkin, Martin G. - Village of Morton Grove
Elliott, John D. - Village of Okawville
Fragassi, Mark - Waukegan
Grande, James T. - Village of Posen
Green, David L. - Rockford
Guillani, Frank C. - Village of South Chicago Heights
Harman, Ralph A. - Village of Glenview
Hartigan, Michael T. - Countryside
Harvey, Keith A. - Village of Tinley Park
Hawrysiw, Jay J. - Village of Chicago Ridge
Heckman, Scott A. - Village of Woodridge
Hoffman, Brian M. - Village of Homewood
Hoffman, Jarod R. - DeKalb
Hoffman, Michael A. - Maroa
Host, Glen S. - Village of Oak Lawn
Hubsy, John M. - Wheaton
Huelsmann, Glenn F. - Village of Grantfork
Jahnke, Jeremy J. - Village of Hoffman Estates
Jones, Charles E. - Joliet
Keller, Charles T. - Harvard
Kent, Jr., Richard A. - Hardinville
Korte, Matthew L. - Village of Germantown
Kuebker, Brian P. - Village of Lindenhurst
Kuper, Gregory G. - Breese
Lawrentz, Kevin M. - Yorkville
Lindeman, John E. - Savanna
Lohse, Hannah E. - Utilities Inc.
Lopez, Wayne M. - Joliet
Lorenzen, Allen S. - Village of Tinley Park
Lynch, Timothy E. - Village of Orland Park
Marth, Michael T. - Sycamore
Maveus, Jon C. - Village of Oswego
McKay, Scott A. - Village of Hampton

McLoughlin, Sean - Village of Norridge
Miller, John G. - Waterloo
Moore, Jill R. - Mitchell PWD
Mulvaney, Jeremy W. - Silvis
Munch, William L. - Aurora
Musel, Anthony J. - Village of Fox River Grove
Nelson, Ken E. - Illinois-American Woodridge
Nix, Kirk A. - Village of Westmont
O'Dell, Patrick E. - EJ Water Corp.
Organ, Bruce A. - Village of Riverdale
Oscarson, Eric C. - Village of Schaumburg
Pennington, Jeff A. - Village of Mt. Morris
Perez, Sergio R. - Village of Woodridge
Perri, Anthony J. - Village of Glenview
Peters, Gary R. - South Stickney SD
Peterson, Gene A. - Village of Joy
Pfaff, Edward P. - Village of Montgomery
Philip, Jeffrey M. - Village of Oak Lawn
Pickett, David C. - Gillespie
Potthast, Brandon R.
Reyna, Ted G. - West Chicago
Robertson, Paul W.
Rogan, Jonathon B. - Village of Glenwood
Rowe, Jason D. - Mill Creek Water District
Ruffatto, David P. - Westwind Estates
Rymer, Gregory E. - Lake County Public Works
Santiago, Miguel A. - Aurora
Scarcliff, Michael R. - Aqua Illinois – Kankakee
Schrandt, Jr., Steve W. - Village of Schaumburg
Schumacher, David E. - Aurora
Short, Martin E. - Jerseyville
Siple, Matthew J. - Village of Oak Lawn
Sonnemaker, Brandon C. - Petersburg
Stefani, James R. - Village of Cary
Stoiser, Juana - Village of Bloomingdale
Tarqueno, Jeffrey C. - Village of Chicago Ridge
Thompson, Damen L.
Timmons, Kelly R. - Mitchell PWD
Van Dyke, Mark J. - Morris
Verkler, Joseph R. - DeKalb
Wade, Dan T. - Village of Glenwood
Walbright, David M. - Shelbyville
Walker, James C. - Village of Schaumburg
Walneck, Ed G. - Village of Woodridge
White, Marion T. - Village of Pleasant Hill
Wiemers, Brian M. - Village of Hamel
Willeford, Victor L. - Greenville
Wiza, Walter F. - Village of Westchester
Woloszyk, Glenn D. - Kingston

Daudelin, Eric J. - Village of Barrington
Davis, Korrie M. - Petersburg
Fernandez, Dawn M. - Freeport
France, Lawrence A. - Village of Fox River Grove
Glock, Michael A. - Geneva
Gordon, Kyle T. - Consolidated Water Services
Hutson, Charles L. - Rend Lake
Jahnke, Jeremy J. - Village of Hoffman Estates
Jones, Randy G. - Village of Pittsburg
King, Jr., Thomas B. - Village of Bloomingdale
Lasken, Scott J. - Village of Hoffman Estates
Lemons, Jr., Wesley - Village of Richmond
Reirich, Joel B. - Village of Poplar Grove
Sergent, Ben A. - Otter Lake Water Commission
Sivels, Preston - Sparta
Sonnemaker, Brandon C. - Petersburg
Southerland II, Robert N. - Ellery Water Corporation
Stuart, Trent E. - Macon
Thomas, Jesse C. - Sparta
Thompson, Bradley K. - Flora
Vega, Elias - Village of Bloomingdale
Workman, Tony J. - EJ Water Corp.
Ziemer, Karl E. - Decatur

Class D

Barber, Chris - Richmond
Bewley, James Boyd - Yates City
Bowers, Mark E. - Saline Valley Conservancy Dist.
Camerer, Lewis F. - Manchester
Combs, Daniel J. - Manteno
Crawford, Jonathan D. - Petersburg

Bureau of Water Annual Hearing Set

The Illinois EPA Bureau of Water will hold its 2007 annual hearing at 10 a.m. Tuesday, August 21, 2007, at the Illinois EPA headquarters' offices, located at 1021 North Grand Avenue East, in Springfield.

The public will have an opportunity to comment on the following programs:

- Revolving Loan Programs: Wastewater and Drinking Water
- Water Quality Management Plan
- Triennial Review of Water Quality Standards
- Section 319(h) Financial Assistance for Nonpoint Source Pollution Control

Additional information will be posted in July on the Agency web page at www.epa.state.il.us.

Digester/Over the Spillway

Published by the State of Illinois
Environmental Protection Agency
Box 19276
Springfield, Ill. 62794-9276

PRESRT STD
U.S. POSTAGE
PAID
SPRINGFIELD, IL
PERMIT NO. 704