



Partners in PA

Partnership for Safe Water Update

Volume 11 • Issue 1



62 Phase I & II Plants
49 Awarded Phase III



The SPOTLIGHT is on:

Moon Township Municipal Authority



Moon Townships' Superintendent Robert Rateau, Manager John Riley, with a staff of eleven (11) operators, has become the PFSW program's newest member. Moon Township Municipal Authority is located in the Southwest District, Allegheny County, and services a population of 20,000. Moon Township blends surface and ground water. It has a radial well and two vertical wells. Their primary surface water intake is on the southern shore of the Ohio River. Moon Twp. has 7,657 water customers and 170 miles of water mains. Let's all welcome Moon Township Municipal Authority, Welcome to the Partnership!



Shown are (left to right): John Wink, MTMA Board President; Barbara Grosch, ACHD Environmental Health Specialist; John Riley, MTMA Manager; Charleen Brown, MTMA Director of Compliance; Robert Rateau, MTMA Superintendent; Deborah Walker, MTMA Director of Engr.; Kay Frederick, DEP Operation SW Section Chief; Kate O'Neill, SW/ NW PFSW Representative

Partnership for Safe Water Round Table meeting



Sedimentation Basin Turbidities

Reported by Denny Kreider, Laboratory Manager at Oakmont Water Authority

"Several of my plant operators have complained about their sedimentation basin turbidities. Their filter turbidities are well below 0.1 NTU's but they have problems with their sedimentation turbidity in meeting the Partnership goal. This is how Oakmont was able to meet the goal in all 5 of their sedimentation basins." Perhaps this information would help others.

Oakmont's filter effluents have been very good lately averaging 0.02 NTU. However the sedimentation basins turbidity was averaging 1.5 to 3.0 NTU. Oakmont felt that the sedimentation basin turbidities should be better as the coagulant charge and streaming current analyzers were performing fine. When Oakmont observed the flow through the sedimentation basin turbidity pump lines, they found the flow was too great. Large particles were being pulled from basin and the line into the sample cell giving a higher sedimentation basin turbidity reading.



Shown are (left to right): Bill Peterman, Denny Kreider, Jeff Collins, Carl Schultz, Bo Ovamio, Ed Adams, Bob Mueller and Ken Meglaye

Oakmont decided to add a 1/2" ball valve to the end of each sedimentation pump line to control the flow. Reducing the flow through the pump lines kept the large particles from being drawn into the sample cell. Currently the sedimentation basins turbidity is averaging less than 1 NTU. The ball valves are working well. Oakmont was also able to reduce the coagulant dosage.

Update Your Partnership Information

Send any changes to your Partnership contact information to Debby Qualls at dqualls@awwa.org. If we don't have the correct information you may miss out on upcoming program improvements. Be sure to include current e-mail address if available.



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National Conference on Water System Optimization

Mark your calendars! Planning has begun for a *Partnership* conference October 18-20, 2010 in Hershey, Pennsylvania. Technical presentations will help utilities optimize water treatment plants and distribution systems. Operations personnel, including supervisor, managers, operators, and engineers will benefit from the program. Look for more information to come.



The National Conference on Water System Optimization

October 18-20, 2010 Hershey, PA

For more information, contact Diane Cox at 717.774.8870

Save
the date!

Treatment Tips

It is important to use the correct backwash rate. Many plants don't have a high enough backwash rate. This can be catastrophic. But most of the time the filter performance degrades so slowly that it isn't even noticeable. One day you decide to inspect the filter media and you find a lot of muck (dirt) deep in the filter, perhaps even in the support gravel. The only way to get this out is to completely rebuild the filter and replace the material with clean sand and gravel. If you don't adjust the backwash rate the process begins all over again.

A filter that is optimized and has the correct backwash rate may only need to be rebuilt after 20 years or more. Poor backwashing can require this major construction activity as often as every 5 – 10 years. To avoid unnecessary maintenance and to improve filter performance, the backwash rate should be optimized to match the type of filter, the seasonal water temperature and the type of filter materials. You should then check the backwash rate at least quarterly to make sure it remains optimized.

Field measuring the backwash rate....

You don't need to know the surface area of the filter to measure the backwash rate. Just lower the water level so that it is even with the filter surface. Put marks on the filter wall that is one foot apart. Start the backwash (you might need to turn off the air scour or surface wash) and time how long it takes for the water to rise the one foot. You might want to do this a couple of times so you know you have the correct time.

Backwash rate (gpm/sq ft.) = 60 second in a minute/seconds to rise one foot x 7.48 gal/cu ft. Example: in takes 25 seconds to rise one foot

Backwash rate (gpm/sq ft) = 60/25 x 7.48 = 17.95

Plants Seeking Phase IV – Register with AWWA!

ALL plants that are actively pursuing the requirements of Phase IV to achieve the "Excellence in Water Treatment Award" MUST register prior to submitting an award application. It is highly recommended that plants register before they even begin to collect the documentation needed to attain Phase IV. Registration must occur at least three months prior to submitting a Phase IV application. The registration is free and the form is included with the Phase IV application on the *Partnership* website at www.partnershipforsafewater.org.

The Phase IV Chapter

The PA-Section of AWWA, Partnership for Safe Water program, has had a number of systems begin the process of collecting data with an eye toward working on and completing a Phase IV Report.

This is no simple task; the complexities and the expectations of the Report writing are reserved for those systems that are truly at the top of their game. Some of the systems have reported that the data collection and analysis required in the Phase IV program did not really represent an additional hardship since they have always been ahead of the regulations and requirements, constantly seeking new ways to optimize their treatment capabilities. Mike McFadden, Water Plant Supervisor at the Carlisle Water Treatment Plant reports, "Data collection and analysis has always been a critical tool that we use in making process decisions". The data acquisition initially required some adjustment at his facility, but the new stream of data now helps his operators look at the treatment process in a new light. Mike confirms, "The Phase IV requirements have made us look at some of the data in a different way. This has added valuable information that we now use in our daily process decision making." He also reports that the sample Phase IV Report found online provides him with a step-by-step approach on how to organize and discuss his findings.

The AWWA web site, www.awwa.org/Resources/partnershipforsafewater, provides an outline and example of a Phase IV Report depicting the unique requirements noted under the program requirements tab. This section outlines the data needed and composition required in the Report, depicting the analysis of data that is not commonly expected. The site also provides the Phase IV application, guidelines, and now a sample Report. Systems that are working on the Report have found it useful to print out the guidelines and sample Report and place them in a "working binder" to be used as a reference and example as they proceed through the data collection and writing phases of the Report.

Ultimately, those individuals who feel that their facility is up to the task of investigating, initiating and completing the Phase IV program will be rewarded both through improved operations and recognition by their peers.

For more information regarding the Phase IV program please contact your Partnership for Safe Water Representative or Diane Cox at the New Cumberland office at 717-774-8870.



Holiday Greetings

to all PA Partners... from PA Section AWWA

