

OHIO RIVER VALLEY WATER SANITATION COMMISSION

MINUTES

**202nd Meeting of the Technical Committee
Renaissance St. Louis Airport Hotel
St. Louis, Missouri
June 4, 2013**

Chairman Toby Frevert, Presiding

Call to Order

The 202nd meeting of the ORSANCO Technical Committee was called to order by Chairman Frevert at 10:00 am CDT on Tuesday, June 4, 2013. Six states, two federal agencies and four Commission advisory committees were represented. (For Roster of Attendance, see page 9).

Minutes of 201st Committee Meeting

ACTION: Motion passed to accept the minutes of the 201st Technical Committee meeting.

Chief Engineer's Report

Mr. Tennant reported on a number of items:

Joint Meeting with UMRBA – Mr. Tennant noted that this Technical Committee meeting is somewhat abbreviated in order to facilitate Wednesday's full day joint meeting with the Upper Mississippi River Basin Association (UMRBA).

USEPA's Competency Policy for Assistance Agreements – Mr. Tennant indicated that staff has been informed by USEPA Region 3 that the agency is stepping up its quality assurance requirements for federal grant recipients that generate environmental measurement data. Staff will be working with EPA over the coming months to assure compliance with the applicable quality assurance requirements including the necessary documentation. Mr. Tennant reassured TEC that quality assurance is staff's number one consideration, and that quality would not be sacrificed under any circumstances.

Ohio River Sweep – The 24th annual Ohio River Sweep will take place this year on June 15, 2013. This will be Jeanne Ison's last Sweep since she is retiring, and Lisa Cochran will be assuming responsibilities for the Sweep in the future.

Total Dissolved Solids Project

Staff provided an update on the Ohio River Users Program study to characterize dissolved solids concentrations in the Ohio River and select tributaries. Weekly sampling was conducted from December 2011 to December 2012 at 11 mainstem locations and on five tributaries (Allegheny, Monongahela, Beaver, Muskingum, and Big Sandy Rivers). The study found that TDS levels in the Ohio River were well below the Commission's 500 mg/L standard. The highest levels occurred during low flow conditions in August and September. Five ions, including sulfate, bicarbonate, calcium, chloride, and sodium made up over 90 percent of the total dissolved solids concentrations. Some spatial trends were noted with

sulfate declining longitudinally, while bicarbonate showed a consistent increase, doubling from Pittsburgh to Cairo, Illinois. The final report will be presented at the October meeting.

Pollution Control Standards

Staff provided an overview of a white paper developed to inform Commissioners regarding the variance issue. It was attached to the Commission agenda as a draft for information purposes and there are no further plans to do anything more with the paper.

Staff then discussed multiple options for addressing variance requests regarding the pending prohibition on mixing zones for Ohio River discharges of bioaccumulative chemicals of concern (BCCs). Currently, the Commission has an in-depth variance review process which requires nine months or more to evaluate a variance request. As a result, the Pollution Control Standards Committee will be proposing a resolution for adoption by the Commission at its Thursday meeting. The resolution recognizes the Commission's policy on enforcement which recognizes the states' primary role, and proposes that the Commission accept either state-issued compliance schedules or enforcement orders in lieu of a Commission-issued variance to address discharges needing relief from the mixing zone prohibition requirement.

There was significant discussion by the committee and commissioners attending regarding the merits of the proposed resolution.

ACTION: Motion passed that the committee endorses the proposed resolution on the states' use of compliance schedules or enforcement orders in lieu of the Commission granting a variance, which will be presented for adoption at the Commission meeting on Thursday.

Report of the NPDES Subcommittee

The subcommittee met twice by conference call to address four issues, including: 1) coordinating and streamlining ORSANCO's variance process, 2) permit development for criteria that apply at downstream intakes, 3) review of discharges potentially needing variances regarding their discharge of mercury, and 4) development of implementation language for the recently adopted human health temperature criterion.

Indiana and Ohio both have streamlined mercury variance processes regarding the mixing zone prohibition for discharges of mercury. The streamlined processes are used to grant variances to lower-concentration mercury discharges that can't meet standards without a mixing zone. If the discharge meets the criteria for its mercury discharge, then they are granted a variance without a comprehensive review. The variance would require implementation of a pollutant minimization plan.

Staff met with IDEM and OEPA to develop a similar streamlined, coordinated approach. The proposed approach would require low-level mercury monitoring to determine reasonable potential. The discharge would need to be able to meet a monthly average effluent limit of 30 ng/L, and would be required to develop and submit a mercury minimization plan.

There was significant discussion on the streamlined mercury variance proposal. There was question as to the number of mercury discharges needing a variance that may utilize this procedure. As a result, the issue was referred back to the NPDES Subcommittee for further work.

The NPDES Subcommittee continues to work on a procedure for states to utilize in developing effluent limits for ammonia and total dissolved solids criteria that apply at downstream intakes. The next step in that effort is to determine if any water utilities are experiencing instream levels of these pollutants above the applicable criteria at their intakes. If so, a special permitting procedure may be necessary to ensure protection of instream standards.

At its last meeting, TEC directed the NPDES Subcommittee to work in conjunction with the Power Industry Advisory Committee (PIAC) on development of implementation language regarding the recently adopted temperature criterion of 110 deg F for the protection of human health which is applicable where public access is possible. Chairs of the NPDES Subcommittee and PIAC and ORSANCO staff held a conference call to discuss the issue. Subsequently, PIAC offered implementation language which was reviewed by the full NPDES Subcommittee who did not believe that the proposal provided significant clarifying language.

FGD Mercury Study

Staff presented preliminary results of a one-year study to characterize mercury discharges from four coal-fired power plants. Four rounds of quarterly sampling for mercury, selenium, bromide and ancillary parameters were conducted at the influent, FGD discharge and final effluent for each of the four plants. No effluent values exceeded the Commission's total mercury water quality criterion of 12 ng/L. In addition, methyl mercury concentrations were fairly consistent between influent, FGD, and final effluent discharges. A written report is forthcoming.

Proposed 2014 305b Mercury Fish Tissue Assessment

In the 2012 305b assessment for the Ohio River, the fish consumption use based on mercury was left unassessed due to a lack of available fish tissue methyl mercury data sufficient to utilize USEPA's methodology. There was also an open question as to the use of fish tissue data from outside entities in the assessment. Staff proposes to use an approach that is accepted by USEPA for determining impairment with one modification that would eliminate the weighting of data based on the number of samples in a given species. This would allow ORSANCO to utilize data from outside entities while minimizing the influence that could result from having many more samples for one species than another. The proposed approach will be presented to the 305b Workgroup for their input.

Fish Otolith Ablasion: A New technique for Evaluating Fish Exposure to Mercury

Mr. Reash reported on a new technique for evaluating fishes' lifetime exposure to mercury. The method involves analyzing the fish otolith ear bones. Trace elements such as mercury bioaccumulate in the otolith. The method allows for these trace elements to be measured over time, the end result being that changes in bioaccumulation over time, the lifespan of the fish, can be measured. One of the benefits of this technique would be to understand if bioaccumulation rates are changing over time.

Future ODS Replacement Strategy

In response to a directive issued by the Program and Finance Committee to investigate alternative funding sources for the next renovation of the Organics Detection System, a presentation was provided that evaluated funding requirements if the responsibility for the next upgrade fell to the drinking water utilities. Several cost options were presented, ranging from equal apportionment to proportional based costs using population served estimates. The

model assumptions for each assessment included: a \$5M replacement cost for complete ODS equipment and system upgrade and a 7-year renovation increment.

Equal apportionment assumptions included the entire pool of 33 drinking water purveyors on the Ohio River or tributaries where ODS systems are operational. Using this and the above assumptions, each utility would be required to contribute \$152K per year for 7 years for a total per utility contribution of \$714K.

Proportional costs based on population served used the same assumptions as above, scaled to reflect the percent of total population served per utility, i.e., Louisville Water Company serves an estimated 920,000 people (22.5 %), while Evansville Water serves 250,000 (6.1%) and Cairo Water, 3,500 (0.1%). Proportional costs for ODS renovation among these three utilities would be \$243K, \$57K and \$800 per year, respectively. Applying the 7-year renovation increment, the amounts paid by each utility would total \$1.1M, \$306K and \$4K, respectively (the per site cost for ODS renovation is \$312K). Using this same formula, the replacement cost assumption was scaled to reflect totals of \$2.5M and \$1.5M.

Another permutation evaluated was a personal use fee which calculated the revenue generated by levying a per consumer user fee. The consumer basis was estimated at \$5M for Ohio River/tributary users that benefit from the ODS. A fee of 1¢/consumer/year would accrue \$50,000 each year x 7 years = \$350K. To reach the \$5M replacement cost estimate, the consumer fee would need to reflect a 14.3¢ annual contribution. Other funding options presented included fines and penalties from spills/discharge issues; discharge permit fees (600 NPDES discharges/\$5M/7 years = \$1190/discharge); Department of Homeland Security funding; and consumptive loss fees. Grants from both public and private sectors were also included as potential funding sources.

Other issues and options discussed included the temporal component to the funding perspective; why use a 7-year/next renovation period strategy horizon? Why not use a 14, 21 or 28-year horizon? Will resource development in the upper river require a change in analytes and corresponding change in equipment?

The above options were presented and discussed at the Commission's Water Users Advisory Committee meeting held May 7 and 8. The consensus of the committee found the amounts required of them to unilaterally support the next ODS renovation were not feasible to underwrite.

The committee agreed that staff would work with the Water Users Advisory Committee to develop a more accurate estimate of the actual cost to maintain the system into the future so that the Commission could utilize such information in the consideration of other funding options.

Report of the Water Resources Committee

Sam Dinkins reported on the outcomes from the most recent Water Resources Committee meeting which was held April 9, 2013. Key agenda items included 1) presentations on the efforts related to the Water Resources Initiative, 2) an update on the ecosystem flow studies in Pennsylvania, and 3) a discussion on the Commission's involvement in water resources after current grant funding runs out.

Water Resources Initiative

Two draft reports completed as part of the Water Resources Initiative were distributed to the Water Resources Committee for review and comment. The first report is an inventory of the various laws and regulations that govern water resources in the Ohio Valley. The second is a characterization of water use in the Basin. Staff is now working on two separate reports regarding inter-basin transfers and the potential water resource impacts of shale gas development. The results of these assessments will be included as part of the water resources characterization reports to be completed in the coming year.

Ecosystem Flow Studies (E-Flows)

The Nature Conservancy, under contract with Pennsylvania DEP, has been working on a series of studies to provide science-based flow recommendations for each of the major basins in the commonwealth. TNC completed an E-flows study for the Susquehanna Basin in 2011, and the Susquehanna River Basin Commission (SRBC) recently adopted a new low-flow protection policy based, at least in part, on the study's findings. A similar study has been undertaken for all streams in the Pennsylvania portion of the Ohio River Basin. The final report was just released in May. PA DEP is now evaluating the report to determine how it might guide future water withdrawal policy decisions.

Future Water Resources Involvement

The Water Resources Committee discussed the Commission's involvement in water resource issues once current grant funding is depleted. Foundation support for the Water Resources Initiative is expected to last only through 2014. The Commission will need to implement a new funding strategy within the next 12 to 18 months in order to continue its involvement in this area. Execution of a Governor's MOU is seen as a critical step in securing a minimal level of funding sufficient to support the work of the Water Resources Committee.

Report of the TMDL Workgroup

The TMDL Workgroup met in May to discuss the status on the bacteria TMDL. The effort is being led by USEPA Region 5. The modeling contractor, Tetra Tech, is adapting the USACE HEC-RAS model to include a water quality module to simulate *E. coli* levels in the Ohio River. Significant progress in setting up the model has been made, but there are still some technical issues which must be resolved before the model can be calibrated. Unfortunately, USEPA is having difficulty in securing additional funds to extend the contract for model development. As a result, work on the model must be suspended until a new contract can be set in place.

FY14 Technical Program

Staff presented an overview of the FY14 technical programs as adopted at the Program and Finance Committee meeting. The program includes all recommendations or endorsements of the Technical Committee as developed during the February Technical Committee meeting.

Member Updates and Interstate Water Quality Issues

Kentucky

Mr. Payne reported that KDOW's water quality standards were recently approved by the legislature and are now under review at USEPA Region 4. One of the big items is the derived state-specific water quality criterion for selenium. KDOW is currently working on a new KPDES Coal General Permit to replace the current general permit that will expire next year. This proposed permit will require biological monitoring prior to the commencement of coal extraction operations. The KDOW conducted quality assurance training and certification for all of its technical staff this spring. A bill was passed with requirements for the integrated

report and TMDL development. The legislation requires development of a new TMDL web page which will maintain updates on all TMDLs under development, a public review process for TMDLs under development, an annual report to the legislature regarding TMDL development plans for the following year, and a 60-day public review and comment period on its TMDL list.

Water Users Advisory Committee

Ms. Armacost reported that many of the items discussed at the latest Water Users meeting have already been discussed including the ODS renovation and future replacement funding issues. Concerning development of a water quality criterion for bromide, the USEPA research center in Cincinnati is conducting studies simulating conditions experienced by Ohio River water utilities to determine instream levels of bromide that may cause undesirable disinfection byproducts in finished water. This research should be beneficial in future consideration of the need for a bromide criterion to protect drinking water supplies.

Power Industry Advisory Committee

Mr. Reash reported that the USEPA recently released for public comment, proposed effluent guidelines for steam electric power generating facilities. Eight options of varying stringency are being proposed that cover among others, wastewater discharges of bottom ash, fly ash, and FGD scrubbers. The most stringent option includes numeric limits for undiluted FGD scrubber waste. The rule is scheduled to be finalized by June 2014. In addition, the final 316b rule addressing fish impingement/entrainment is scheduled to come out this month.

New York

Commissioner Wilson reported on behalf of New York since Jeff Konsella was not able to attend due to state travel restrictions which may be lifted in the near future. Two major NYSDEC operated/maintained flood control projects (at Olean and Portville) on the Allegheny River were rated by the US Army Corps of Engineers (Corps) as unacceptable in early summer 2011. The result was the projects being removed from the Corps' Rehabilitation and Inspection Program (RIP). NY State developed and submitted "Letters of Intent" to the Corps in February 2012 under the Corps' new State Wide Improvement Framework (SWIF) policy. These two projects were conditionally approved by the Corps in October 2012.

NY State has committed over \$50M in funding to address such flood control project deficiencies State Wide. The deficiencies noted on the two projects on the Allegheny River will be addressed in 2013-2014 using contracts that will be paid with the NY Works funds. Contracts are being prepared to address sediment removal, repairs, and various other noted inspection program deficiencies. This work will begin in 2013 and will continue throughout 2014.

NYSDEC has adopted new regulations for water withdrawals, and they took effect on April 1, 2013. For more information, see <http://www.dec.ny.gov/lands/55509.html>.

The Phosphorus TMDL for the Chautauqua Lake watershed was approved by EPA. For a copy of the TMDL, see <http://www.dec.ny.gov/chemical/23835.html>. The DEC is currently drafting SPDES permit modifications for the affected wastewater treatment facilities.

NYSDEC regulations are being changed to raise the state permit threshold from 200 to 300 mature dairy cows. After the regulations are issued, farms will be able to have up to 299 mature dairy cows without being subject to NYS Environmental Conservation Law (ECL)

general permitting requirements for Concentrated Animal Feeding Operations (CAFO). State ECL CAFO general permit requires no discharge, and relies on a Certified Nutrient Management Plan prepared by professional farm planners. Farms between 200-299 cows will still be subject to Federal Clean Water Act CAFO permitting regulations. For more information on NY's CAFO regulations, see <http://www.dec.ny.gov/permits/6285.html>.

Pennsylvania

Mr. Schwartz reported that an Eco-Flows study has been completed by The Nature Conservancy for the Ohio Basin in Western Pennsylvania which was funded by the PADEP. The final report is available on The Nature Conservancy's website which addresses the management of flows to maintain stream ecology. PADEP will be considering the future use of this information in its water management functions.

West Virginia

Mr. Mandirola reported that they recently passed an emergency water quality standards rule for a hardness-based aluminum criterion and to modify their beryllium criteria. The aluminum criterion will be more stringent at hardness below 60 mg/L and less stringent above 60 mg/L. The beryllium criteria are being changed from 0.0077 ug/l to the current USEPA recommended criterion. The emergency rule was submitted to USEPA for approval and will be incorporated into their standards which are currently under triennial review and scheduled to go to the state Legislature in January 2014. Other items in the triennial review include removal of the drinking water use designation for a couple of small, unnamed tributaries. A site-specific criterion for zinc is being proposed. Nutrient criteria for lakes are proposed for modification by eliminating the language concerning 303(d) listing criteria. Fecal coliform criteria are being eliminated and USEPA's recommended E. coli criteria are being proposed. These criteria will be different from ORSANCO's criteria. Dissolved oxygen criteria from the Kanawha River are proposed to be changed from 4 mg/L to 5 mg/l.

A state-wide stormwater construction general permit for oil and gas associated activities was recently issued. They are also developing a new assessment tool for aquatic life that considers both macroinvertebrates as well as fish as directed by recent state legislation. The USEPA has added 174 segments to West Virginia's 2012 integrated list of waters requiring TMDLs. This was due to the state not including waters that were initially assessed as impaired based on macroinvertebrate data alone as required by the state legislation.

Ohio

Mr. Elmaraghy reported that the comment period on Ohio's water quality standards rulemaking package has been extended to June 3 which includes the ORSANCO 2012 standards update including the human health temperature criterion. An initial comment period on OEPA's nutrients rulemaking closed on May 22 and they will be drafting a final rule this summer. Initial public input seems to indicate general support for the proposal. Regarding sulfate limits in coal NPDES permits, the USEPA is requiring the state to conduct reasonable potential analyses. The state does not have numeric criteria for sulfate, so the narrative standard is used to formulate a numeric effluent limit which the industry is objecting to.

The state is working on developing draft findings and orders to Eastern Ohio Regional Water Authority regarding proper O&M of their collection system and proper reporting of overflows. The Steubenville WWTP has proposed using peracetic acid for disinfection as a cost-saving as well as safety measure which the state is now evaluating. MaryLynn Lodor remarked that Cincinnati MSD is also evaluating its use. Finally, the state is working with

Kinder Morgan regarding the reduction of runoff from a large salt pile along the Ohio River banks in Hamilton County.

United States Army Corps of Engineers

The Corps is underway to engage stakeholders in the Ohio Basin to solicit input as to what their civil works program might look like in the future including integrated water resources management. There will be a series of small workshops this summer to engage the Technical Committee, the Water Resources Committee, the Ohio River Basin Alliance, the navigation industry, the Southeastern Power Authority (hydropower), The Nature Conservancy and others.

POTW Advisory Committee

Ms. Lodor reported that the committee believes a streamlined mercury variance procedure would be in the best interest of Ohio River wastewater utilities. They continue to have concerns about the bacteria TMDL which is utilizing an unproven water quality model for bacteria. The committee continues to express interest in the water quality trading program. The committee is also very interested in the USEPA's recommended integrated planning approach to stormwater and wastewater management and prioritization. Finally, Cincinnati MSD recently received approval of its Lower Mill Creek Partial Remedy which includes a \$244 million program that will reduce untreated overflows by almost 2 billion gallons annually.

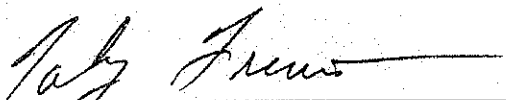
Next Meeting

The next meeting of the Technical Committee will be held on October 8-9, 2013 at the Marriott Town Center, Charleston, West Virginia.

Adjournment

The 202nd meeting of the ORSANCO Technical Committee was adjourned on Tuesday, June 4, 2013.

Approved:



Toby Frevert, Chairman

Prepared by Jason Heath, P.E., BCEE with contribution from Stacey Cochran, Sam Dinkins, Jerry Schulte, Jeff Thomas, and Greg Youngstrom.

(Tape recording of proceedings available at Commission Headquarters)

PowerPoint presentations from this meeting are available on the Commission website at www.orsanco.org.

Roster of Attendance

Technical Committee

| | |
|------------------------------------|---------------------------|
| Chairman | Commissioner Toby Frevert |
| Illinois | Marcia Willhite |
| Indiana | Shivi Selvaratnam |
| Kentucky | Randy Payne |
| New York | No representative |
| Ohio | George Elmaraghy |
| Pennsylvania | Ron Schwartz |
| Virginia | No representative |
| West Virginia | Scott Mandirola |
| US Army Corps of Engineers | Erich Emery |
| US Coast Guard | No representative |
| US EPA | Tim Henry |
| US Geological Survey | No representative |
| Chemical Industry Committee | No representative |
| POTW Advisory Committee | MaryLynn Lodor |
| Power Industry Advisory Committee | Rob Reash |
| Public Interest Advisory Committee | Ron Riecken |
| Water Users Advisory Committee | Mary Armacost |
| ORSANCO Chief Engineer | Peter Tennant |
| Staff Liaison | Jason Heath |

Commissioners

Stuart Bruny, Doug Conroe, Chuck Duritsa, Tom Easterly, David Flannery, Sandy Gruzesky (proxy), Ken Komoroski, Ron Lovan, Scott Nally, Greg Phillips, Ron Potesta, Paul Tomes, Mike Wilson

Staff

Dave Bailey, Lisa Cochran, Sam Dinkins, Tracey Edmonds, Joe Gilligan, Eben Hobbins, Jeanne Ison, Jerry Schulte, Jeff Thomas

Guests

| | |
|-----------------|------------------------------|
| Cheri Budzynski | Shumaker, Loop, and Kendrick |
| Scott Hall | Environ |
| Lori Leffler | Axiall Corp. |
| Bob Mosher | Illinois EPA |
| Paul Novak | Chair, NPDES Subcommittee |
| Jim Rock | Axiall Corp. |