

OHIO RIVER VALLEY WATER SANITATION COMMISSION

MINUTES

206th Meeting of the Technical Committee Ogelbay Resort and Conference Center Wheeling, West Virginia October 7-8, 2014

Chairman Toby Frevert, Presiding

Call to Order

The 206th meeting of the ORSANCO Technical Committee was called to order by Chairman Frevert at 1:00 pm on Tuesday, October 7, 2014. Five states, four federal agencies, and three Commission advisory committees were represented (for Roster of Attendance see page 9).

Minutes of 205th Committee Meeting

ACTION: Motion passed to accept the minutes of the 205th Technical Committee meeting with a minor change on page 10 offered by Tim Henry (minutes have been revised to reflect the change).

Chief Engineer's Report

Mr. Tennant congratulated staff member Sam Dinkins on recently obtaining his M.S. Environmental Science and Policy from Johns Hopkins University.

Staff contributed an article on ORSANCO's role in the coordination of river basin water resources activities which was published in the September 2014 issue of the magazine, "Water Resources Impact."

As a result of the recent Elk River spill, ORSANCO will be compiling a summary of states' regulations, policies, and management practices regarding the control of above-ground storage tanks. Mr. Tennant reported that staff would be contacting state TEC members to obtain contact information for the appropriate state staff responsible for those programs.

In conclusion, Mr. Tennant recognized and congratulated states for their recent interstate coordination of source water protection programs.

Development of Harmful Algae Bloom Response Plan

The Commission directed staff to convene a work group to develop a harmful algae bloom monitoring, communication, and response plan for the Ohio River. The work group consists of a representative from each state on the mainstem of the Ohio River, USGS, USEPA, USACE, and the Water Users Advisory Committee. The work group held its first call on October 1, 2014. Staff will prepare an outline of the plan components for TEC to review.

Ron Schwartz suggested that staff compile all of the states' and other basin commissions' HAB policies as a starting point for the initiative.

Consideration of Waters of the US Proposal

The proposed “Waters of the United States” rule seeks to provide clarity to the definition of waters of the U.S. and is being proposed jointly by the US Army Corps of Engineers and the US Environmental Protection Agency. Comments on the proposed rule are due November 14, 2014, and ORSANCO was asked to compile comments by member states and disseminate them for consideration. The rule has minimal impact on interstate waters including the Ohio River. Mr. Tennant asked TEC if they wanted to submit comments as a group on the proposal. Many of the states believe that their definition of state waters is broader than the US waters definition such that the proposal will have little or no impact on the states. Rob Reash indicated that the proposal could create problems for utilities in terms of permitting transmission line extensions.

ACTION: Motion passed that TEC recommends against the Commission submitting comments on the proposed Waters of the US rule.

Review of ORSANCO Spill Notification Procedures

Jerry Schulte provided an overview of the emergency response protocol that has been developed and is implemented in response to spills, releases or other events that could impact drinking water quality and drinking water utilities along the Ohio River. The emergency response protocol addresses all actions and activities that are undertaken by staff during such events. The primary categories in the emergency response protocol include spill detection and tracking, modeling/time of travel estimation, field activation of ORSANCO staff, data management and dissemination, public information, information updates, ORSANCO’s role in the unified command, and cost recovery.

Mr. Schulte provided an in-depth account of how and why each of these elements is implemented during an actual spill event. The technical committee received the report without question or comment. The protocol will be presented to the Water Users Advisory Committee for review.

Report of the NPDES Subcommittee

Staff provided a report of the NPDES Subcommittee on behalf of the Chairman Paul Novak who was unable to attend the TEC meeting. The subcommittee met on September 17. Five states and USEPA Region 5 participated. The subcommittee considered the impacts of the 500 mg/L TDS criterion on Ohio River discharge permits. It appears that, in general, the criterion is not a problem for permitting; however, West Virginia has been including TDS limits in permits for some POTWs, and they have had to issue a compliance schedule to one power plant.

The subcommittee considered the need for ORSANCO to specify duration and frequency for criteria in its Standards; however, the subcommittee did not feel there was a strong need for this. The criteria listed as “not to exceed” in ORSANCO’s Standards have created some permitting difficulties.

The subcommittee is recommending procedures for developing effluent limits for criteria that apply at downstream intakes including TDS and ammonia. The subcommittee recommends that the states utilize their existing procedures where existing discharges are located in areas with no water quality concerns for these parameters. For cases of new discharges or where there are water quality impacts, the subcommittee recommends that states utilize a mixing model and account for background concentrations to calculate appropriate effluent limits.

Review of Pollution Control Standards

Staff presented an overview of the process and schedule for the 2015 Standards revisions which would include a public comment period and hearing in the spring/summer of 2015, and final approval by the Commission at its October 2015 meeting. The Pollution Control Standards Committee continues to consider revisions to the mixing zone prohibition for BCCs and the total mercury water quality criterion. Regarding the existing TDS criterion, staff has been directed to investigate what protections might be needed for industrial source waters. The Standards Committee is considering adoption of the new USEPA recommendation for ammonia criteria for the protection of aquatic life and whether to include the “mussels absent” criteria tables which the US Fish and Wildlife Service have recommended against. TEC recommended that staff collect data on the distribution of mussels in the Ohio River which staff is in the process of doing. Mr. Heath indicated that staff is undertaking a study utilizing satellite data to determine the impacts of thermal discharges on the Ohio River. The Standards Committee will not be proposing revisions to the E. coli, nutrients, chloride or thallium criteria, and will recommend that no action be taken regarding public comments submitted on “fracking.” The NPDES Subcommittee has commented that there is no strong need for ORSANCO to specify frequency and duration for criteria in the Standards. The Standards Committee is considering changes to the reporting requirements for upsets and bypasses, but no changes with regard to the use of the term “variance”, the analytical section of the Standards or the net discharge provision as was recommended through the public comment period.

Monitoring and Water Quality Conditions - Summer 2014

Flow conditions during the field season were above average from May through August and below average in September. Frequency of violations for the single sample e. coli criterion (i.e. 240 CFU/100) ranged from 10% in Huntington and Cincinnati to 50% exceedance rate in Wheeling. Dissolved oxygen, with few exceptions, consistently remained above 5.0 mg/L and temperature levels were much cooler than normal with no excursions above the standard throughout the field season.

Staff presented bimonthly sampling and clean metals program data showing lower total phosphorus and total kjeldahl nitrogen in 2013-2014 year than in the previous decade. Water quality criteria violations for total mercury occurred at seven Ohio River stations: one violation occurred in the 2013-2014 data at each of six sites while three violations occurred at L&D 52. State criteria violations for total iron were displayed, occurring at nearly all Ohio River stations and with greater frequency in the lower river.

Fish and macroinvertebrate population surveys were successfully completed in all four target pools in 2014 (Belleville, Markland, McAlpine, and Olmsted). Initial fish population index scores indicate that all four pools were in passing condition for Aquatic Life Use assessments. Continuous (every 30 minutes) dissolved oxygen/temperature sensors were set at all macroinvertebrate sites for the entire six weeks that the macroinvertebrate samplers were in the river to gather information that may be used to explore nutrient criteria. All but two of the sensors were retrieved. All 18 fixed stations were successfully surveyed for fish populations in mid-August. Thirty-five fish tissue samples that satisfy fish consumption advisory and methylmercury fish consumption use assessment needs were collected and have been shipped off to Pace Analytical for analysis. Seven mobile aquarium displays were conducted at various river festivals in two states. All six continuous conductivity/temperature sensors have been pulled from their locations and will be sent to the manufacturer for servicing and battery replacement before being deployed again in 2015 bracketing biological survey pools. Seventeen remaining NRSA sampling events were successfully conducted, bringing the total number of events to 44 in 2013-2014.

Nutrients

Staff provided an update on the EPRI trading project. The project team is focused on completing projects in Ohio and Kentucky. An auction is planned for early 2015. Staff also provided an update on the new monitoring approach for development of numeric nutrient criteria for the Ohio River. Continuous dissolved oxygen data loggers have been deployed alongside Hester-Dendy macroinvertebrate samplers. Nutrients and chlorophyll samples were collected at the time of deployment. Retrieval of the devices will continue through October.

ORSANCO Fish Tissue Contaminants Program Status and Project Updates

Total Mercury Trends Analysis

Further data qualification for final analyses has been completed, including data from the 15 species for which we have the most data and omitting all samples analyzed using method 1631 (too few samples). A total of 1,241 tissue samples from 1983 – 2010 were used. Data were standardized for total length. All trends analyses are species specific and temporally based. The final analysis approach is being refined using geometric means of both average length and Hg concentration for each year. Results were graphed over time to demonstrate any concurrent trends and account for average length and Hg concentration relationships per species/taxa group. Regression models were used to determine significance between average length and Hg concentration versus year. Results indicate that there appear to be no significant increasing, nor decreasing trends in Total Hg concentration in the taxa analyzed between 1983 and 2010 with the exception of White Bass. Relationships between analysis factors are relatively flat, and more detailed statistics are being applied.

Mr. Reash indicated that some atmospheric deposition monitoring stations collecting mercury data may provide some information on the results of the trends analysis.

Program Updates

Four of the six mainstem states (and ORSANCO) have signed the Ohio River Fish Consumption Advisory Protocol (ORFCAP) MOU. Illinois members are in agreement and adoption will be in progress once the appropriate agents of the state are identified, and follow-up with PA is still pending as they are experiencing agency turnover. The MOU will be discussed in late 2014 via conference call with the ORFCAP workgroup.

2014 Fish Consumption Advisory recommendations were issued to the states early this year. PA, WV and OH have published advisories that are consistent with ORSANCO recommendations. KY advisories differ from ORSANCO recommendations as Sensitive Population Advisories for Channel Catfish are indicated. We will update future recommendations accordingly. Other discrepancies exist for six other species in KY. Indiana lists a special advisory for Freshwater Drum <14 inches, and the Illinois Department of Health lists more detailed size class advisories for Blue Catfish and Flathead Catfish. Discrepancy resolution and state updates will be addressed in the coming months.

Water Resources Initiative Update

The Water Resources Committee met on June 24, 2014. Sam Dinkins reported on the outcomes from the most recent meeting and provided a status update on the current activities of the Water Resources Initiative. Two draft reports are under review by the committee on shale gas development in the Ohio River Basin and inter-basin water transfers. The Water Resources Committee continues to support the adoption of a Water Resources Cooperative Agreement among the states and encourages the Commission to seek approval by the governors.

Methyl Mercury Bioaccumulation Study

Staff presented a brief summary of the report “Development of an Ohio River Site-Specific Methyl Mercury Bioaccumulation Factor.” The study shows bioaccumulation factors higher than those of the USEPA Draft National Bioaccumulation Factors (2001 Methyl Mercury Criterion, Appendix A, Section 1). The higher bioaccumulation factors indicate a risk for mercury concentrations in fish tissue to exceed the 0.3 mg/kg water quality criterion at geometric mean aqueous concentrations of total mercury less than the Commission’s current criterion of 0.012 ug/L for total mercury in water. The study proved comparable to earlier Commission work comparing total mercury in large hybrid striped bass tissue with total mercury water data. The information may be used to evaluate the Commission’s current water quality criterion for total mercury. The Technical Committee was asked to comment on the report and share it with others in their agencies for initial comments. Staff also presented costs associated with completion of a similar study at one or more different Ohio River locations.

ACTION: TEC recommends that the bioaccumulation study be replicated in middle and lower river pools after completion of a peer review of the first study report, and to include selenium in these additional studies.

Source Water Protection Program Update

Organics Detection System Renovation

Jerry Schulte reported on the progress made by Lila Ziolkowski and Travis Luncan as they continue the renovation of the Commission’s organics detection system. Installations were proceeding at three of the four remaining ODS sites: Paducah, St. Albans and Portsmouth. Only one site remains to be upgraded, which is Pittsburgh Water. It is unclear if Pittsburgh will be upgraded as they have indicated they will no longer be able to support the ODS and the traditional gas chromatograph configuration. Consideration will be given to installing one of the Inficon on-line process instruments at this location.

Spill Notification and Response

Jerry Schulte and Bruce Whitteberry, Chairman of the Commission’s Water Users Advisory Committee, then provided an overview presentation on the recent spill of diesel fuel from the Duke Energy Beckjord Power Generating Station.

The Beckjord Power Generating Station is located on the Ohio shoreline only 10 miles upstream of both Northern Kentucky and Greater Cincinnati water utility intakes. During the transfer of diesel fuel from an on-site 700,000 gallon storage tank to two 30,000 gallon storage tanks, the receiving tanks overflowed into their concrete secondary containment area. However, the drain valve for the secondary containment was open, which allowed the oil to flow freely down the shoreline and into the Ohio River. The discharge occurred at midnight on August 20. Approximately 10,000 gallons of fuel oil was released. A unified command was established on site, and the incident command system was utilized to integrate and coordinate response activities. Fortunately, neither drinking water utility was contaminated. Staff participated in the unified command and collected water samples for analysis by the drinking water utilities. Commissioner Hedman commended ORSANCO for its role in the spill response effort.

Source Water Protection Plan Development

Bruce Whitteberry commented on the progress made in the development of the joint Greater Cincinnati Water Works/Northern Kentucky Water Utility source water protection plan. Greater Cincinnati Water Works and the Northern Kentucky Water Utility have been meeting monthly with ORSANCO staff to develop a joint source water protection plan. As part of the process, meetings have been held with the two industrial facilities, located in the zone of critical concern, immediately upstream of both utilities intakes; Duke Energy’s Beckjord Power Plant and Continental Building Products. The beneficial

results of these meetings were evidenced as direct communication and notification of the diesel spill event, as provided by Duke Energy to both water utilities, almost immediately. The effort and process undertaken to develop this joint source water protection plan is a model for not only other Ohio River drinking water utilities, but should stand as the model process for any and all drinking water utilities.

Member Updates and Interstate Water Quality Issues

Kentucky

Mr. Payne reported that Kentucky has issued section 402 general permits for the state's eastern and western coalfields. These permits require discharge toxicity monitoring, increased biological monitoring, and trends assessments that require the permit holder to increase management activities if the need is indicated. HABs in the states reservoirs have continued to persist, even during the winter, and many calls from the public have been received so that the issue has become a public relations concern. The USEPA has been collaborating with NASA on remote sensing of HABs, and the state is investigating participation in the project. The USEPA is developing human health criteria and BAFs for several HABs-related toxins. There is a state-wide fish consumption advisory for mercury which the state is considering elevating based on recent data. Lastly, the Division of Water is working to update its databases.

PIACO

Ms. Mallison reported that PIACO met on October 1 and discussed a number of issues, one having the most concern being fracking under the Ohio River. The committee recommended that ORSANCO develop a media statement regarding this activity's potential effects on the Ohio River. Mr. Tennant noted that articles have reported that West Virginia has sold mineral rights under fourteen miles of the Ohio River. PIACO also recommends that ORSANCO have talking points prepared and disseminated to staff regarding HABs/nutrients as well as other relevant issues.

Pennsylvania

Mr. Schwartz reported that he will be the proxy for Dana Aunkst who is the new Acting PADEP Secretary. They recently received a \$4,000,000+ penalty through the oil and gas program due to leaking impoundments in Washington County. PADEP recently hosted a joint meeting with OEPA and WVDEP to discuss oil and gas management issues. PADEP is in the process of completing a TNORM study which should be completed later in 2014.

Water Users Advisory Committee

Mr. Whitteberry reported that the committee will be recommending to the Commission that staff revisit the MOUs between ORSANCO and the ODS utilities to ensure the clarity of each entity's responsibilities and to document ownership of the equipment and data. An issue resulting from the Elk River spill is how ORSANCO might be able to obtain proprietary information on chemicals that are involved in spill incidents. At its most recent meeting, the committee also received a presentation from representatives of the West Virginia oil and gas industry regarding hydraulic fracturing operations and issues which was informative.

Ohio

Mr. Gebhardt reported on the Lake Erie HAB incident for which a state of emergency was declared in three counties. Microcystin was being detected in Toledo's drinking water intake at levels of 14 ug/L, and 3 ug/L in the finished water. The World Health Organization indicates a level of concern at 1 ug/L for microcystin. Mr. Gebhardt thanked the USEPA for their assistance. This incident points to the need for a monitoring system similar to ORSANCO's ODS. OEPA is working with sources including the agricultural industry and private septic systems in an effort to mitigate a reoccurrence. Paul Novak and several other key staff are retiring from OEPA which will require a reshuffling of responsibilities within the organization. Mr. Gebhardt thanked Paul for his service to OEPA as well as ORSANCO.

Power Industry Advisory Committee

Mr. Reash reported that the 316b rule has become effective, and that he believes the rule is quite reasonable and allows for substantial flexibility. The Steam Electric effluent guidelines rule is scheduled to be issued next September. The key component includes numeric effluent limits for FGD wastewater. The final coal combustion byproducts rule is scheduled to be finalized this December which will include classifying these byproducts as hazardous materials. Requirements of the Clean Air Act will result in the closing of several power plants along the Ohio River, most having once-through cooling water which will result in a decrease in the thermal loading to the Ohio River.

US Environmental Protection Agency

Ms. Hedman reported that the comment period on the Waters of the US rule have been extended to Nov. 14. The USEPA Science Advisory Board is about to release its peer review of a report on connectivity in streams and wetlands which the federal agencies would like to consider in finalizing the Waters of the US rule. The comment period on the Clean Power Plant proposal which addresses carbon emissions has also been extended. Ms. Hedman reported that Region 5 convened a meeting of the affected states immediately following the Toledo HAB incident to begin addressing the long-term issues and needs. Administrator McCarthy convened an interagency task force meeting to approve the Great Lakes Restoration Initiative funding and also to begin interagency coordination to address HABs in the Great Lakes. The USEPA is considering water quality standards for HABs toxins and will be issuing a health advisory for microcystin as soon as possible. The USEPA has issued four permits for Class VI underground injection which are currently being challenged. Another permit has been issued for underground injection of carbon dioxide. Finally, the Inspector General issued a report on September 30 which indicated that more monitoring should be required in regards to NPDES permits beyond the 126 priority pollutants.

United States Army Corps of Engineers

Erich Emery reported that a report on the Corp's climate change project for the Ohio River Basin will be available in December. They are working on collaborative strategies with the state agencies on addressing HABs issues for reservoirs in the Ohio Basin. HABs strategies are currently in place for Ohio and Indiana and the Corps is currently working with Kentucky to finalize a strategy. HABs occurred in Corps reservoirs through last winter. Legislation was recently passed on HABs as well as hypoxia which brings together the appropriate federal agencies to address these concerns in a task force. Mr. Emery represents his agency on this task force. The Corps is working on a remote sensing pilot project in Harsha Lake and Taylorsville Lake where satellite hyper-spectral data is ground-truthed using fly-over data and boat-collected data. They are working with the USEPA ORD, NOAA, and USGS under a NASA grant looking at standardizing satellite data and utilizing it in cell phone applications. Finally, Mr. Emery reported that Debbie Lee has accepted a position with NOAA as Director of the Great Lakes Environmental Research Laboratory in Ann Arbor, Michigan.

Indiana

Ms. Selvaratnam reported that Indiana is currently working on revisions to its aquatic life and human health ambient water quality criteria for eight to ten metals, essentially adopting US EPA's national recommended criteria. IDEM is also currently working on a nutrient reduction plan and nutrient criteria for surface waters. The state is currently issuing permit limits of 1 mg/L for total Phosphorus. She reported that Indiana has not experienced major issues regarding HABs this year.

United States Geological Survey

Mr. Buszka reported that the USGS is doing modeling in association with flood inundation mapping initiative with the Corps and FEMA. There was a report completed in the Illinois segment of the Ohio River regarding back-water inundation mapping. They are expanding their continuous monitoring for nitrate and phosphorus which will enhance their ability to compute loads for these pollutants. It will also allow for an evaluation of how effective BMP implementation is in decreasing these loads.


Next Meeting

The next meeting of the Technical Committee will be held February 11-12, 2015 at the Embassy Suites Cincinnati-RiverCenter, Covington, KY.

Adjournment

The 206th meeting of the ORSANCO Technical Committee was adjourned by Chairman Frevert at 11:01 am on October 8, 2014.

Approved:



Toby Frevert

Prepared by Jason Heath, P.E., BCEE with contributions from Sam Dinkins, Eben Hobbins, Jerry Schulte, Rob Tewes, 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	Not present
Indiana	Shivi Selvaratnam
Kentucky	Randy Payne
New York	Not present
Ohio	Karl Gebhardt
Pennsylvania	Ron Schwartz
Virginia	Not present
West Virginia	Scott Mandirola
US Army Corps of Engineers	Erich Emery
US Coast Guard	Cmdr. Lindsay Weaver
US EPA	Tim Henry
US Geological Survey	Paul Buszka
POTW Advisory Committee	Not present
Power Industry Advisory Committee	Rob Reash
Public Interest Advisory Committee	Betsy Mallison
Water Users Advisory Committee	Bruce Whitteberry
ORSANCO Chief Engineer	Peter Tennant
Staff Liaison	Jason Heath

Commissioners

Stuart Bruny, Doug Conroe, Chuck Duritsa, Tom Easterly, George Elmaraghy, Tom Fitzgerald, David Flannery, Toby Frevert, Peter Goodman, Susan Hedman, Ron Lovan, Phillip Morgan, Greg Phillips, Ron Potesta, Bruce Scott, Paul Tomes, Ross Wales (legal counsel), Mike Wilson.

Staff

Dave Bailey, Lisa Cochran, Sam Dinkins, Joe Gilligan, Jason Heath, Eben Hobbins, Jerry Schulte, Rob Tewes, Jeff Thomas, and Greg Youngstrom

Guests

Kenny Akins	Axiall Corp.
Scott Brown	FirstEnergy
Tim Cobaugh	Axiall Corp.
Jessica Greathouse	Chesapeake Energy
John Hirschfield	Axiall Corp.
Joe Lapcevic	First Energy
Deborah Lee	USACE
Kevin Sheridan	Westlake Chemical Corp.
Bud Smith	Mountain State Carbon