

# OHIO RIVER VALLEY WATER SANITATION COMMISSION

## MINUTES

203<sup>rd</sup> Commission Meeting  
Oglebay Resort & Conference Center  
Wheeling, West Virginia  
Thursday, June 14, 2012

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Chairman Charles Duritsa, Presiding

### Call to Order

Chairman Duritsa called the 203<sup>rd</sup> meeting of the Ohio River Valley Water Sanitation Commission to order at 9:30 A.M. on Thursday, June 14, 2012.

Commissioner Duritsa led the Commission in the Pledge of Allegiance.

### Quorum Call

Commissioner Frevert declared that a quorum was present (see Roster of Attendance, page 19).

### Action on Minutes

**ACTION:** Motion by Scott Mandirola, second by Commissioner Nally and carried, that the minutes of the 202<sup>nd</sup> meeting of the Commission and of the February 2012 Executive Session, electronically distributed on May 24, 2012, be adopted as presented.

### Recognition of Service

Commissioner Lovan presented the following resolution for adoption:

#### **RESOLUTION 2-12 RECOGNITION OF SERVICE JEFFERY EGER**

**WHEREAS:** Jeffery A. Eger has completed seven years of service to the Ohio River Valley Water Sanitation Commission representing the Commonwealth of Kentucky; and

**WHEREAS:** Commissioner Eger has provided the Commission with support and the benefit of his expertise on water and wastewater issues while serving as Chairman of the Commission and other Commission Committees; and

**WHEREAS:** Commissioner Eger has given service and contributed his expertise in advancing the Commission's water pollution control goals for the Ohio River Valley; and

**WHEREAS:** Commissioner Eger's expertise has been dually recognized by his new position as Executive Director of the Water Environment Federation:

**NOW, THEREFORE, BE IT RESOLVED:** The members of the Ohio River Valley Water Sanitation Commission express their esteem and appreciation to Mr. Eger for his service and extend their best wishes for future endeavors.

**ACTION:** Motion by Commissioner Nally, second by Commissioner Lovan and carried, to adopt Resolution 2-12 as presented.

**Report of the Treasurer**

Commissioner Frevert noted that a Treasurer's report as of May 31, 2012 was provided in the agenda packet.

The report indicates a balance of \$306,067 in accounts receivable due the Commission as of May 31, 2012. The balance represents \$110,075 due from Signatory States, \$63,769 due from Federal sources and \$132,223 from other sources.

Additionally, the report indicates receipts of \$3,424,629 plus carryover of \$1,986,066 totaling \$5,410,695 through the end of May 31, 2012. Of that amount \$3,140,976 was expended on programs, leaving \$2,269,719 available for the continuation of ORSANCO's programs.

**ACTION:** Motion by Commissioner Frevert, second by Commissioner Flannery and carried, to receive the Treasurer's Report as presented.

**Report of the Chairman**

Chairman Duritsa began by noting significant changes in the organization over the past year beginning with a change in leadership after 24 years. He recognized staff for their positive contribution in making the leadership transition go well.

Chairman Duritsa continued by commenting on the challenge of funding ORSANCO's water resources initiative, and reported that staff has been reasonably successful in securing foundation funding to move this initiative forward. Work will continue with the states to secure ongoing funding for water resources activities.

Chairman Duritsa also commented on nutrient trading, noting the informative presentations provided on this subject at the prior day's Roundtable of Commissioners. These presentations also highlighted ORSANCO's potential role in trading. ORSANCO may be uniquely positioned to play a coordinating role in trading. This is another example of the important role ORSANCO plays in environmental protection.

Chairman Duritsa closed by once again thanking the Commissioners and staff for making his tenure as Chairman a very rewarding experience.

**Report of the Executive Director**

Peter Tennant, Executive Director, began by mentioning the success of ORSANCO is in large part due to the strength and dedication of the staff. He continued by reporting on US EPA's recently released Toxics Release Inventory which a Pennsylvania environmental group used as a basis for depicting the Ohio River as the most polluted river in the country. Apparently high concentrations of Nitrate from two discharges (one in Indiana and one in Kentucky) were in large part responsible for most of the large quantity of "toxics" discharged to the Ohio River.

However, Mr. Tennant indicated that Nitrate is not listed as toxic under the Clean Water Act. Further analysis indicates that when discounting Nitrate, the Ohio River does not receive the most toxins but is in the top ten. Mr. Tennant suggested that some changes to the report might be warranted.

Mr. Tennant provided an update on the continuing issue of ORSANCO not receiving complete Ohio River spills information from the US Coast Guard. The Coast Guard is in the process of drafting a Memorandum of Understanding with US EPA in an attempt to resolve this issue. In addition, the Congressional Committee which oversees US Coast Guard appropriations is proposing language which would encourage the Coast Guard to resolve this ongoing issue.

Mr. Tennant concluded by reminding that the Ohio River Sweep would be held on Saturday, June 16 and encouraged everyone to participate.

### **Report of the Technical Committee**

Commissioner Frevert, Technical Committee Chairman, reported that the Technical Committee met on June 12-13, 2012 and provided the following recommendations:

#### **Fiscal Year 2013 ORSANCO Technical Programs**

The Technical Committee endorses the fiscal year 2013 ORSANCO technical programs as agreed to at the Program and Finance Committee meeting and presented to the Technical Committee and documented in a Technical Committee agenda attachment.

The NPDES Subcommittee recommended, and the Technical Committee endorsed, adding a project to the FY13 program to analyze trends in Ohio River mercury levels in relation to discharges from flue gas desulfurization units (scrubbers) at coal fired power plants.

#### **2012 Assessment of Ohio River Water Quality Conditions**

The Technical Committee approved the report: 2012 Assessment of Ohio River Water Quality Conditions, otherwise known as the 305b Report as presented by staff and included with the agenda.

In the report, the entire river is assessed as fully attaining its aquatic life and public water supply uses. The entire river is designated as impaired for the fish consumption use due to levels of PCBs and dioxin, and additional work is needed to determine the minimum requirements for assessing the river based on fish tissue contaminants data (particularly regarding mercury at this time). Finally, approximately two-thirds of the river is impaired for the contact recreational use based on bacteria levels.

#### **Pollution Control Standards**

The Technical Committee reviewed the report of the Pollution Control Standards Committee and endorses its recommendations regarding: 1) 2012 revisions to the Pollution Control Standards; 2) Development of a formal variance application and review process, and 3) Its preliminary decision regarding the PPG Industries, Natrium, WV variance request. The Committee received information that would lead us to anticipate receipt of additional requests for variance from the Commission's standards provision to prohibit mixing zones for bioaccumulative chemicals of concern.

**ACTION:** Motion by Commissioner Frevert, second by Commissioner Nally and carried, to receive the Report of the Technical Committee.

## **Report of the Water Resources Committee**

Commissioner Potesta, Committee Chairman, reported that the Water Resources Committee held its third meeting on May 29 & 30, 2012 in Erlanger, Kentucky. Representatives from five states, the US Army Corps of Engineers, the US Geological Survey, and the National Weather Service were in attendance. The main topics for discussion included an update on the Water Resources Initiative and advancement of a Governors' memorandum of understanding endorsing a Commission role in water resources.

Commissioner Potesta reported on the following items:

### **Water Resources Initiative**

The Committee received an update from staff on the current and upcoming activities related to the Water Resources Initiative. The effort involves three main budget components including: 1) completion of three water resource characterization reports, 2) visits to state and federal agencies to keep interested parties apprised of the Commission's water resource activities and to gather information for inclusion in the characterization reports, and 3) support for Water Resources Committee meetings and related activities. The focus of the three characterization reports will be to provide a general characterization and inventory of the water resources in the Ohio River Basin, examine the laws and regulations related to water management, and to evaluate and define the desired role for the Commission in water resources.

The Water Resources Initiative is a three year project with a total budget of \$400,000. The effort is being supported solely through external funding. The Commission has received five grants to date totaling \$315,000. Staff is actively pursuing other foundations for the remaining support. Long term funding was also discussed at the meeting. The Committee noted that the Commission needs to be proactive in seeking a sustainable funding mechanism in order to continue activities beyond the initial three-year effort.

### **Guest Presentations**

Three guest presenters were invited to the meeting to provide briefings on specific water resources topics.

Mr. Gus Drum from the Huntington District of the US Army Corps of Engineers gave a presentation to the Committee on the Ohio River Basin Comprehensive Reconnaissance Report. This study, completed in 2009, was a significant effort to characterize many aspects of the water resources in the Ohio River Basin. This report will serve as an excellent resource for staff to use in completing the Water Resources Initiative characterization reports.

Ms. Michelle DePhilip from The Nature Conservancy provided a briefing on a study to establish ecosystem flow recommendations for all streams in the Pennsylvania portion of the Ohio River Basin. The effort, which is funded by Pennsylvania DEP, will provide guidance to the state for defining critical flow thresholds in water management plans and could be used by the Corps of Engineers to optimize reservoir release operations. The study is scheduled to be completed by September 2012.

Mr. Dick Bartz with the USGS Ohio Water Science Center presented a proposal to conduct a water use inventory for the entire Ohio River Basin. The last comprehensive review was completed in 1995 and significant changes in water use have occurred since that time due to changes in population and energy production. One element of the Commission's Water Resource Initiative is to complete a similar type of assessment, but on a less detailed overview level.

### Governors' Memorandum of Understanding

The Committee also discussed a Governors' memorandum of understanding which would serve as an endorsement by the States recognizing a role for the Commission in water resources management. The language of the agreement was finalized by the Committee and is now ready to be advanced for signatures. Support for the MOU was expressed by members from Indiana, Kentucky, Ohio, Pennsylvania, and West Virginia. It is unlikely that the remaining states will elect to join the agreement at this time.

**ACTION:** Motion by Commissioner Potesta, second by Marcia Willhite and carried, to receive the Water Resources Committee report as presented.

### Report of the Pollution Control Standards Committee

Commissioner Easterly, Committee Chairman, reported The Pollution Control Standards Committee met on April 11, 2012. Three items on the agenda were continued development of a variance application and review process, evaluation of the variance application by PPG Industries, Natrium, WV facility, and development of proposed revisions to the Commission's Pollution Control Standards.

### Triennial Review of Pollution Control Standards: Proposed 2012 Revisions

The following is a summary of proposed 2012 revisions to the Commission's Pollution Control Standards:

- 1) Formatting changes:
  - a. Sections renamed "Chapters".
  - b. Sections II. Definitions, VII. Limitation, VIII. Variances and X. Severability Clause all rolled into Chapter 1 General Provisions.
  - c. Section III. Designated Uses renamed Chapter 2 Designated Uses.
  - d. Section VI. Mixing Zone Designation renamed Chapter 4 Mixing Zone Designation.
  - e. Section IX. Analytical Methods rolled into Chapter 5 Wastewater Discharge Requirements.
  - f. New Chapter 2.2 Definition/Clarification of Uses created.
  - g. Section 4.E Site Specific Criteria moved to Chapter 1.7 Site Specific Criteria.
  - h. Section IV.B.6.c Wastewater discharge requirements for dissolved metals moved to Chapter 5.4 Waste Water Discharges for Chemical Constituents.
  - i. Section IV.C.6 Critical Flow moved to Chapter 5.2 Wastewater Discharge Requirements, Critical Flow.
- 2) Summary table of all water quality criteria contained in the standards including Appendix E added to Chapter 3.1 Water Quality Criteria Summary Table, and Appendix E Clean Water Act Section 304(a) Human Health Criteria for Priority pollutants deleted.
- 3) Section IV.B.3 Temperature criteria for aquatic life protection revised based on the ORSANCO Temperature Criteria Workgroup recommendations and included in Chapter 3.2.C.
- 4) A maximum temperature criterion of 110 degrees F added to Chapter 3.3.F for the protection of human health from exposure to water contact.
- 5) Section IV.C.1 Bacteria criteria revised as follows and included in Chapter 3.3.A as follows:
  - a. Section IV.C.1.b fecal coliform bacteria criteria for contact recreation removed.
  - b. Recreation season in which bacteria criteria for contact recreation revised from May through October to April through October.

- c. Section IV.C.1.c. E. coli criterion of 130/100 mL as a monthly geometric mean revised to 130/100 mL as a 90-day geometric mean.
- d. Section IV.C.1.c E. coli criterion of 240/100 mL not to be exceeded in any sample revised to 240/100 mL not to be exceeded in more than 25 percent of samples.
- 6) Section IV.B.6.a Acute aquatic life criterion for selenium of 20 ug/L removed in Chapter 3.2.F.
- 7) Section VIII.A.5 Variance provision requiring “Concurrence from the state where the applicant’s discharge is located, and those states whose waters may be affected, that a variance is warranted and would be considered.” is removed from Chapter 1.6 Variances.
- 8) Section VIII.B. Variance provision that “The Commission may require additional information that it deems relevant to its decision-making process revised in Chapter 1.6.B Variances to read “The Commission may require additional information that it deems relevant to its decision-making process including, but not limited to, the NPDES permitting state regulation that would allow the requested variance absent the ORSANCO standard.”
- 9) Add to Chapter 1.6 Variances, 1.6.A.5 Variances granted pursuant to this section shall be included in Appendix F of these standards.

The process and schedule for adoption of 2012 revisions is as follows:

Public notification that the Commission is accepting comments on proposed revisions to the Pollution Control Standards was made on May 11. This was done through several hundred postcards, several thousand emails, a press release and notification on the Commission’s website.

Webinars, replacing public workshops, were held from 2:00-4:00 PM on May 24, and from 6:00-8:00 PM on May 30. A hearing is scheduled for 4:00-7:00 PM on June 19 at the Airport Holiday Inn, Erlanger, Kentucky.

Comments will be accepted until July 20 by mail and e-mail, and at the hearing. The Commission may consider adoption of proposed revisions at its October 2012 meeting. All relevant information and resource materials are available on the Commission’s website.

Process for Consideration of Variance Requests

The following changes to the variance application and review process were agreed upon by the committee and a draft document reflecting those changes is attached (Attachment 1):

- 1) Several editorial changes from the previous draft were made.
- 2) The requirement for concurrence from the affected states was removed.
- 3) Language was added indicating that ORSANCO may require additional information including the NPDES permitting state’s regulation that would allow the requested variance absent ORSANCO’s pollution control standards. This was done so that the Commission would not carry out a detailed evaluation of a variance request that would not be possible due to the permitting state’s regulations.
- 4) The public notification procedure was revised as follows:
  - a. Public notification will be made within 30 days of receipt of a variance application.
  - b. A 30-day public comment period will be held after the Pollution Control Standards Committee makes an initial recommendation to the Commission and the Commission approves opening the public comment period.
  - c. The public will be notified within 30 days of the Commission’s final decision regarding disposition of the variance application.

- 5) Initially no variance application fees will be required, but the committee will continue to evaluate future needs based on staff workload requirements.
- 6) It was agreed that the variance process as currently drafted would be applicable to any variance application.
- 7) A variance application and review process should be adopted after the PPG variance review is completed.

Proposed Disposition of PPG Industries, Natrium, WV Variance Request

The Pollution Control Standards Committee is making the following recommendation to the Commission regarding disposition of the variance application by PPG Industries, Natrium, WV facility and requests Commission approval to make public notification opening a 30-day public comment period:

- 1) A variance from the requirements as set forth in the Ohio River Valley Water Sanitation Commission Pollution Control Standards for Discharges to the Ohio River 2011 Revision, Section VI.G Mixing Zone Prohibition for Bioaccumulative Chemicals of Concern is granted to PPG Industries, Natrium, WV facility (NPDES Permit WV0004359) for a period not to exceed 5 years, beginning October 16, 2013.
- 2) PPG will be allowed a mixing zone as specified above; however, at WV0004359 Outfall 009 the monthly average limit for Total Hg shall not exceed 0.055 ug/L and the maximum daily limit shall be determined by WVDEP in accordance with WVDEP's mixing zone and NPDES rules, regulations, and policies.
- 3) PPG's mercury reduction plan submitted to the Commission as Appendix B in its March 30, 2012 application submittal (Attachment 2) shall be fully implemented.
- 4) PPG shall submit to the Commission and WVDEP annual progress reports beginning October 16, 2013 including the status of implementing its mercury reduction plan and all mercury monitoring data collected as a requirement of this variance and NPDES Permit WV0004359.
- 5) Monthly Ohio River in-stream sampling for Total Hg shall be conducted by PPG upstream of WV0004359 Outfall 009 and downstream of Outfall 009 at the downstream and lateral edge of the regulatory mixing zone as specified by WVDEP in the NPDES permit. Samples shall be representative of the entire water column at each location.
- 6) The Commission shall have the sole authority and discretion to modify, renew, or revoke the variance being granted herein. Further, if the Commission modifies or revokes this variance, the Commission shall formally notify the WVDEP in writing of any such modification or revocation once finalized by the Commission. Nothing in this variance shall be construed to limit the WVDEP's authority to impose any additional requirements or more stringent requirements regarding total mercury in WV/NPDES Permit No. WV0004359 for Outlet 009.

**ACTION:** Motion by Commissioner Easterly, second by Commissioner Flannery and carried, to proceed with the Pollution Control Standards public hearing process on the proposed Standards revisions and report back to the Commission in October. .

**ACTION:** Motion by Commissioner Easterly, second by Commissioner Frevert and carried, to continue to use the proposed variance process for a complete variance approval cycle, make appropriate adjustments, and then submit the final process to the Commission for consideration.

**ACTION:** Motion by Commissioner Easterly, second by Commissioner Potesta and carried, to move forward with the approval process for the PPG variance with conditions outlined, complete the public review process and submit a final variance to the Commission in October for consideration.

### **Report of the Water Quality Review Committee**

Commissioner Bruny, Committee Chairman, reported that the Water Quality Review Committee met by conference call on April 24. The Committee reviewed the status of issues that it is tracking, reviewed the outcomes from the February Round Table discussion of the Commission's role regarding shale gas development, and developed an agenda for a discussion of the Commission's ongoing role in water quality trading to take place at the June Round Table.

### **Status of Issues Tracked by the Water Quality Review Committee**

A summary of the status of issues was attached to the agenda for this meeting. The Committee agreed that the categories of "active" and "inactive" issues should be abolished as the status of all issues is reported in each update.

### **ORSANCO Role regarding Shale Gas Extraction**

Several presentations on shale gas extraction were included as part of the Commission's February Round Table session. Points from the ensuing discussion included the following:

- 1) The practice of sending frac wastewater to POTWs has for the most part been eliminated.
- 2) Vast majority of frac waste is recycled, reused, deep well injected, or treated.
- 3) Ohio, Pennsylvania, and West Virginia are adequately addressing the issue.
- 4) There are adequate surface water monitoring programs in place to monitor the situation and identify any problems in a timely manner.
- 5) ORSANCO should continue to stay abreast of current issues.

The Committee concluded that the most important role the Commission can perform at this time is to provide a forum for information exchange among the states, including routine presentation of information at meetings of the Technical Committee.

### **ORSANCO Role in Water Quality Trading**

Since 2009, the Commission has participated in a project led by the Electric Power Research Institute (EPRI) to develop a water quality trading program for the Ohio River Basin. The project is now at the point of executing pilot trades which, if successful, should lead to a continuing program. When the continuing program is operational, EPRI will withdraw from participation and pass the leadership on to a different entity. It has been suggested that ORSANCO might be that entity.

In order to provide for a thorough discussion of the Commission's role in an ongoing trading program, the Water Quality Review Committee developed a series of presentations for the June 13 Round Table. It is the Committee's intent to consider the discussions from the Roundtable as the basis for developing a recommendation on ORSANCO's role.

The Roundtable discussion took place yesterday. With the information provided through five excellent presentations, Commissioners were able to consider the pros and cons of alternate roles for the Commission to take on in the continuing program.

Several issues were raised which need to be addressed before a final decision is made, such as:

- Does the Commission have the legal authority to take on a lead role?
- What will be the cost of a potential role?

- What sort of liability would be assumed in taking a lead role?
- Would the Commission face a conflict of interest between developing nutrient criteria and administering a trading program to meet those criteria?

The Water Quality Review Committee will seek to address these issues before developing a recommendation to the Commission on its role. We invite other Commissioners who are not members of the Committee but have interests in this matter to participate in this effort.

**ACTION:** Motion by Commissioner Bruny, second by Marcia Willhite and carried, to receive the report of the Water Quality Review Committee.

### **Report of the Congressional Liaison Committee**

Commissioner Phillips reported on the following activities:

#### **Spills Notification**

Staff members and Mr. Steve Dye of McAllister & Quinn met with staff representatives from the offices of Senator Brown and Senator Rockefeller to discuss the ongoing US Coast Guard spills notification issue. Senator Rockefeller's staff indicated that language would be included into the Coast Guard Reauthorization Bill to resolve the issue of ORSANCO not being authorized to receive complete spills information. By including an ORSANCO provision in the Bill, the fix will be more legislatively binding than including it in the appropriations Bill and will provide a more expedited process for approval.

On March 16<sup>th</sup>, Pennsylvania Congressman Mark Critz visited the West View Water Authority to see firsthand the Organics Detection System site and to better understand Ohio River issues. Congressman Critz has recently agreed to serve as co-chair of the Ohio River basin Congressional Caucus.

#### **ORSANCO Funding Authorization Legislation**

Legislation to create an authorized federal funding mechanism for ORSANCO has been discussed with several of ORSANCO's Congressional supporters for consideration. Pending Legislation in other areas has diverted attention from this initiative. It is hoped that work will begin soon with Representative Capito's office on this possible legislation.

#### **Caucus Activities**

The Ohio River Basin Congressional Caucus hosted a session on June 6<sup>th</sup> to brief Congressional staff on the impacts of nutrients entering the nation's watersheds, what federal agencies are doing to identify and reduce point and non-point sources, and the Water Quality Trading (WQT) program ORSANCO is partnering to create with the Electric Power Research Institute (EPRI).

New Caucus Co-Chair, Representative Mark Critz of Pennsylvania gave opening remarks and expressed strong support for water quality issues and protecting the Ohio River Basin.

**ACTION:** Motion by Commissioner Phillips, second by Commissioner Flannery and carried, to receive the report of the Congressional Liaison Committee Committee.

### **Report of the ORSANCO/Ohio River Users Program Advisory Committee**

Commissioner Potesta, Committee Chairman, reported that the Committee met in Cincinnati on May 31, 2012. The focus of the meeting was to review the results from the ongoing total dissolved solids (TDS) monitoring project, consider new project ideas and to discuss a marketing plan to generate support for the program.

### TDS/Bromide Monitoring Project Status Update

Staff provided an update on the status of the TDS/bromide study which is currently underway. The effort involves weekly sampling at 11 Ohio River sites spread along the entire length of the river from Pittsburgh to Cairo, IL and at 5 tributary locations including the Allegheny, Monongahela, Beaver, Muskingum, and Big Sandy Rivers. Sites are located at drinking water intakes and power plants, and the samples are collected by volunteers from the participating facilities. Participation has been very good with all 16 sites consistently collecting the samples as requested.

The monitoring began in December 2011 and will run for one year. All samples are analyzed for total dissolved solids and a suite of individual dissolved solids constituents. The TDS and bicarbonate analysis is contracted to an analytical laboratory while the other parameters are analyzed in-house through use of an ion chromatograph purchased specifically for this effort. Other physical parameters such as pH, conductance, and temperature are also recorded for each sample. Funding for the project is provided through a \$55,000 allocation from the River Users Program Fund to cover costs for supplies, shipping, analytical costs and funds from the source water protection STAG grant have been used to purchase the analytical equipment and for staff support.

Results to date indicate TDS levels have been fairly low with levels on the Ohio River ranging from 100 to 280 mg/L. Tributary TDS levels have shown more variability than on the mainstem ranging from 60 to 360 mg/L. All are still well below the Commission's newly adopted standard of 500 mg/L. The most elevated concentrations, however, are anticipated in the fall during the typical low flow season.

Initial bromide results were almost all non-detects. Staff then made some changes to the ion chromatograph unit to lower the detection limit from 100 ppb to 35 ppb. As a result of these modifications, bromide is now detected in approximately 40 percent of the samples. Bromide concentrations have been as high as 550 ppb in the Ohio River and 1,800 ppb on the Beaver River.

### New Projects and Marketing the Program

The Committee received a briefing on the Commission's current research activities and discussed the research issues identified through the Research Committee's survey on research needs. The Committee felt that the focus of the River Users Program at this time should be on generating interest and ultimately financial support for the program before moving forward with a new project initiative. Various strategies were discussed on how to engage the river users community and gain the necessary support for future projects. The Committee developed a marketing plan to produce a brochure which will serve to 1) provide background on the program, 2) solicit input from river users on project ideas which could be addressed by the program, and 3) encourage financial contributions to support the program's efforts. The draft brochure will be developed by late summer, with the final copy distributed in early fall.

### Committee Membership

At the February 2011 meeting, the Commission approved a realignment of some Committee members' terms to avoid a scenario where five of the seven river interest appointments would rotate off the Committee at the same time. Among the changes, the term for Mary Ann Henderson from the Bayer Corporation was voluntarily reduced by one year to accommodate the realignment. Ms. Henderson's first term is set to expire in June 2012. Per the Commission Bylaws, she is eligible for reappointment to a second three-year term. Ms. Henderson has served the Committee well and the Commission is encouraged to confirm her reappointment to a second term.

The Committee also discussed options for filling the current industry member vacancy on the Committee. Two suggestions were made. The first was to include a representative from the shale gas industry and the second was to look for a candidate from the agricultural community. The issue will be explored further with a recommendation forthcoming at the next Commission meeting in October.

Additionally, there is also a need to fill the commissioner member vacancy created when former Virginia Commissioner Bob Wayland's term expired. The Committee requested that the Commission consider appointing our newest commissioner Ron Lovan of Kentucky to the Ohio River Users Program Advisory Committee.

**ACTION:** Motion by Commissioner Potesta, second by Commissioner Flannery and carried, to re-appoint Mary Ann Henderson to a second three-year term on the Committee.

**ACTION:** Motion by Commissioner Potesta, second by Commissioner Easterly and carried, to appoint Commissioner Ron Lovan to the Committee.

**ACTION:** Motion by Commissioner Potesta, second by Commissioner Flannery and carried, to receive the report of the ORSANCO/Ohio River Users Program Advisory Committee.

### **Report of the Research Committee**

Commissioner Bruny, Committee Chairman, reported that the Research Committee met in Cincinnati at the June 5 & 6. Seven of the nine committee members, along with several staff, were in attendance. The main purposes of the meeting were to: 1) review current Ohio River research efforts being conducted by the Commission and other entities, 2) review results from a recent survey distributed to ORSANCO committees to identify research needs, and 3) develop a prioritized list of research issues which the Commission could use to direct future activities.

### **Current Research Efforts**

Staff briefed the Committee on current and future Commission research activities. Topics presented included efforts regarding mercury, nutrients, biocriteria development, bromide, and ecosystem flows. In addition, Dan Woltering informed the Committee of ongoing projects being conducted by the Water Environment Research Foundation (WERF) for nutrients and emerging contaminants. Jim Noel from the National Weather Service also provided a briefing on climate change and its potential impacts in the Ohio River Basin.

### **Research Needs Survey**

The Research Committee's charge is to "assess and articulate current and future research needs which will advance the scientific understanding of the Ohio River, its tributaries, and water quality dependent ecosystems." To meet this charge, the Committee distributed a survey in April to various ORSANCO committees and technical staff asking for their input to identify water quality and water quantity research needs in the Ohio River Basin. Fourteen responses were received, though several of those represented the collective thoughts from multiple individuals within specific agencies. For example, while several Indiana Department of Environmental Management (IDEM) staff serve on various ORSANCO committees, a single response was submitted by IDEM representing the combined input from multiple employees of the agency.

The survey asked respondents to: 1) identify current and future research needs, 2) suggest what the Commission's role should be in meeting those needs, and 3) suggest opportunities for collaboration. Responses were received from members of most committees polled and identified a wide range of issues.

### Recommended Research Priorities

The Committee discussed various ways of categorizing the diverse range of issues presented in the surveys as a means to facilitate the process to develop a prioritized list of research needs. Ultimately, the Committee elected to group responses into seven pollutant or topical areas including: 1) nutrients and non-point source pollutants, 2) water resources management issues, 3) mercury, 4) bromide and other drinking water issues, 5) resource extraction, 6) nuisance species, and 7) water quality standards. After much discussion, the consensus of the group was that, in addition to supporting the continuance of the Commission's existing research efforts in other areas, nutrients and mercury were the most pressing research issues facing the Commission at this time. Water resources and drinking water concerns related to bromide were also acknowledged as significant issues; however, research needs in these areas should be reassessed once current efforts underway are completed.

To further clarify the research needs associated with mercury and nutrients, the Committee formulated specific research questions for the Commission to consider in guiding future technical programmatic activities. These questions are as follows:

#### Mercury

- 1) Are regulatory point source controls, which target total mercury discharges, an effective or adequate means to limit methylmercury bioaccumulation in fish?
- 2) Is the prohibition of mixing zones for bioaccumulative chemicals of concern (BCCs) necessary for the Ohio River to protect bioaccumulation in fish?
- 3) Where does the methyl mercury found in Ohio River fish originate? That is, where does mercury methylation occur?
- 4) Is implementation of Clean Air Act regulations, which require some coal-fired power plants to install flue gas desulfurization (FGD) scrubbers, impacting mercury levels in fish and the water column?
- 5) Which fish species (and/or other biota) should be evaluated to adequately determine mercury impairment and for developing bioaccumulation factors (BAFs)?

#### Nutrients

- 1) How are nutrients processed and removed in large river systems such as the Ohio River, its tributaries, and headwaters?
- 2) How does bioavailability differ across the various forms of nitrogen found in the river system?
- 3) How can nutrient criteria be incorporated into a regulatory framework?
- 4) Is the Ohio River currently or in the past been impaired due to nutrients?
- 5) At what levels do nutrients cause impairments? (Develop a river model to assist in defining nutrients levels at which impairment occurs).

The Committee wishes to thank all of those that participated in the survey. The responses will serve to better focus the Commission's efforts to address the most pressing research needs. A summary of all comments received and the results of the Committee's research prioritization exercise will be distributed to all committees included in the survey.

Commissioner Bruny concluded by reporting that Mike Sweeney has stepped down from the Research Committee as he has taken on a new position as the deputy director for a wastewater utility in Florida. Mr. Bruny thanked Mr. Sweeney for his many years of faithful service to the Commission.

**ACTION:** Motion by Commissioner Bruny, second by Commissioner Lovan and carried, to receive the report of the Research Committee.

### **Report of the Program & Finance Committee**

Commissioner Komoroski, Committee Chairman, reported that the Program and Finance Committee met on April 10, 2012. Five member states and the federal government were represented. Commissioner Komoroski reported on the following items:

#### **Status of Fiscal Year 2012 Programs**

Staff reported that all Commission programs for fiscal year 2012 are essentially on schedule and that scheduled outputs will be delivered on time.

#### **Funding Outlook**

Since the federal fiscal year runs from October 1 through September 30 while the Commission operates on a July 1 – June 30 fiscal year, the 106 uncertainty affects both the funds available at the turn of the fiscal year and the funds to be received over the course of the next year. Staff consulted with US EPA Region 3 to estimate the most likely amount of 106 funding to be received for the remainder of FY12 as well as the projected funding for FY2013. Staff was therefore directed to continue developing contingency plans in the event that future cuts are made to the federal funds. State funding for FY2013 and FY2014 will reflect no increase from FY2012.

#### **Proposed Program and Budget for Fiscal Year 2013**

The Committee carefully reviewed the proposed program and budget for fiscal year 2013. The Committee recommends Commission adoption of the proposed program and budget, which is attached to this report.

#### **Recommended Levels of State Funding for Fiscal Year 2015**

State funding allocations for FY2015 will be calculated using the new 2010 census information. The Committee gave serious consideration to future funding needs and concluded that a 1% increase in state funding for fiscal year 2015 should be considered for adoption. As in recent years, this 1% increase could be considered for rescission if current financial difficulties the states are experiencing continue into 2015.

### **Recommendations**

1. The Committee recommends adoption of the proposed program and budget for fiscal year 2013.
2. Efforts should continue to solicit funding support for the Organics Detection System (ODS) from all water users (domestic and industrial) who benefit from the protection the system provides. In addition, the possibility of seeking Homeland Security funds for the ODS should be investigated.
3. The Committee recommends discontinuing ORSANCO's membership to the Water Environment Research Foundation (WERF). The possibility of remaining engaged in WERF through in-kind services should be investigated.

4. The Committee recommends the continuation of providing in-kind services and free office space to Confluence/WTIC but not continue to provide additional monetary funding.
5. The Committee supports continuing efforts to identify new approaches to procure and increase federal funding of ORSANCO.
6. The Committee supports continuing efforts to obtain foundation funding of Ohio River Water Resource Management activities.
7. Staff should continue to conduct contingency planning to prepare for possible reductions in federal 106 funding.
8. The Committee recommends a 1% increase in state funding for FY2015. State funding should remain constant for FY2013 and 2014.
9. The Committee recommends that staff complete an extensive assessment of all possible unfunded or underfunded needs projected for the next three-five years.

Commissioner Komoroski presented the following resolutions for adoption:

### **RESOLUTION 3-12**

#### **PROGRAM PLAN AND BUDGET FOR FISCAL YEAR 2013**

**WHEREAS:** The Commission has established the sum of \$1,363,000 as the amount of appropriations to be requested from the signatory states for fiscal year 2013; and

**WHEREAS:** Funds from the United States Government for approximately \$1,853,168 may be allocated to the Commission for fiscal year 2013 and

**WHEREAS:** Funds amounting to \$638,064 may be available from a variety of sources to support the Ohio River Sweep, River Users, ORSANCO/USGS Gaging Stations, Life Below the Waterline, Wabash Continuous Monitoring, Pathogen TMDL Sampling, EPRI Trading, and Water Resources Initiative; and

**WHEREAS:** The Commission is anticipated to carry over obligated resources of \$1,170,933 into the 2013 fiscal year.

**NOW, THEREFORE, BE IT RESOLVED THAT:** The 2013 Fiscal Year Program Plan for all activities and the budget contained therein and in support thereof be approved as presented.

**BE IT FURTHER RESOLVED THAT:** The Executive Director is hereby authorized to make application for funding as may be available from US EPA, for other Federal funding and funding from other sources as may become available.

**BE IT FURTHER RESOLVED THAT:** The expenditures in fiscal year 2013 be substantially within the framework of the following guidelines, which are made a part of this Resolution.

**2013 FISCAL YEAR BUDGET**

Payroll	\$1,184,861
Employee Benefits	579,737
Staff Travel	247,466
Commission Travel	113,150
Advisory Committees	29,215
Supplies	263,587
Telephone	19,404
Equipment Purchases	540,000
Mortgage, Utilities	96,300
Repairs & Maintenance	37,200
Contractual Services	490,370
Printing & Reproduction	50,144
Lab Fees & Delivery	<u>276,225</u>
Total Expenditure Budget	\$3,927,658

**ACTION:** Motion by Commissioner Komoroski, second by Commissioner Conroe and carried, to adopt Resolution 3-12 as presented.

**RESOLUTION 4-12**

**STATE FUNDING LEVEL FOR 2015**

**WHEREAS:** Article V of the Compact provides that the Commission shall submit to the Governor of each state, at such time as he may request, a budget of its estimated expenditures for such period as may be required by the laws of such state for presentation to the legislature thereof;

**NOW, THEREFORE, BE IT RESOLVED THAT:** The sum of \$1,376,600 be budgeted for operating expenses of the Commission in the Fiscal Year July 1, 2014 to June 30, 2015. Such sum to be prorated among the signatory states in accordance with the provisions of Article X of the Compact.

**ACTION:** Motion by Commissioner Komoroski, second by Commissioner Tomes and carried (Marcia Willhite abstaining), to adopt Resolution 4-12 as presented.

**ACTION:** Motion by Commissioner Komoroski, second by Commissioner Frevert and carried, to receive the report of the Program & Finance Committee.

### **Report of the Public Interest Advisory Committee (PIACO)**

Committee Chairman Eriks Janelsins thanked the Commission for holding its June meeting at Oglebay Park and embracing the environment of Oglebay.

Mr. Janelsins commented that the Public Interest Advisory Committee is pleased with the progress that ORSANCO is making in reaching out to its many publics through technology including the email distribution lists, accepting public comments online, and utilizing webinars. It is the committee's hope that this will lead to increased public engagement while not adding to budgetary concerns. The Committee felt as though the first round of public workshops facilitated via webinar were a successful start and served a similar role as previous workshops, but at a significant savings of time and resources. The Public Interest Advisory Committee would ask the Commission to continue to consider additional ways to increase the interface with the stakeholders on the river and the 25 million citizens living within the basin. If resources are saved from travel, could they be reallocated to assist with increased web presence, social media, or additional communication strategies? Public information, outreach, engagement and staff interaction with key stakeholders continues to be a critical part of the mission of the agency. The convening power of ORSANCO is one of its strengths, and it is the Committee's hope that although the mechanism may evolve as technology changes, the Commission's focus on these initiatives won't wane.

Mr. Janelsins then reminded Commissioners that the Ohio River Sweep would be conducted on June 16<sup>th</sup> and urged everyone to participate.

Mr. Janelsins concluded by noting that the Public Interest Advisory Committee will meet this fall, and will continue to accept nomination from Commissioners for At-Large members who represent active and engaged river stakeholder groups.

**ACTION:** Motion by Commissioner Tomes, second by Commissioner Flannery and carried, to receive the report of the Public Interest Advisory Committee.

### **Report of the Water Users Advisory Committee (WUAC)**

Committee Chairman Ron Bargiel reported that the Committee recommends continued funding of ORSANCO's TDS/Bromide study, noting the value is that TDS is an indicator of a number of water quality issues. Progress is being made to meet the need for historical bromide data. In addition to ORSANCO's TDS/Bromide study, some larger water systems are conducting similar TDS/Bromide analysis. Data correlation is now able to be performed.

Mr. Bargiel also reported that a large coal company is regulating one of its discharges with the intention to be concerned with water quality in the River. He noted that there appears to be reduced levels of TDS and Bromide in the Monongahela River.

The Committee also recommends continued funding of the algae program. Current methods of predicting algae blooms don't appear to be working well. More research and development is needed to predict these taste and odor events.

Mr. Bargiel concluded by bringing awareness to the poor condition of the locks and dams on the Ohio River noting that the Elmsworth Lock and Dam complex is beyond its design life and is in need of repair or replacement. Breach of this dam would have catastrophic outcomes.

**ACTION:** Motion by Scott Mandirola, second by Commissioner Lovan and carried, to receive the report of the Water Users Advisory Committee.

**Report of the Publicly Owned Wastewater Treatment Works (POTW) Advisory Committee**

Committee Chairman MaryLynn Loder reported that the Committee met by teleconference in early April to prepare supplemental information for the Pollution Control Standards Committee. POTW Committee members then participated in a meeting on April 11<sup>th</sup> with the Pollution Control Standards Committee and subsequently held a Committee meeting on June 8<sup>th</sup> to discuss the proposed revisions to the Pollution Control Standards as well as to get some initial information regarding the variance proposal.

The Committee discussed the recreation management tool under joint development. Work will continue with contractors to refine this predictive water quality tool. The focus group will be reconvened in July to provide feedback. The predictive tool might be deployed in August.

The Committee also discussed identifying facilities and how to utilize them as technology test beds. Many POTWs are making capital improvements to reduce CSOs and bacteria within the rivers. Public outreach is also being conducted to solicit input regarding long term control plans being developed for submission to regulatory agencies.

Ms. Loder concluded by noting that the Committee is interested in continued participation in, and advancement of the pilot nutrient trading program.

**ACTION:** Motion by Commissioner Flannery, second by Commissioner Phillips and carried, to receive the report of the Wastewater Treatment Works (POTW) Advisory Committee.

**Report of the Nominating Committee**

Commissioner Tomes reported that the Committee recommends the following slate of officers for 2012-2013:

Chair	Ken Komoroski
Vice Chair	Toby Frevert
Secretary/Treasurer	Tom Easterly

**ACTION:** Motion by Commissioner Tomes, second by Commissioner Flannery and carried, to accept the slate of officers as recommended...

**Upcoming Meetings**

Chairman Duritsa noted the following schedule for upcoming Commission meetings:

- October 9-11, 2012                      Louisville, KY
- February 2013                              Cincinnati, OH
- June 2013                                      St. Louis area

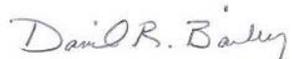
**Comments by Guests**

Jim Rock of PPG Industries thanked the Commission for the variance consideration and its vote of confidence in PPG. He stated that PPG understands the process is not completed and public comment will be received and considered.

**Adjournment**

The 203<sup>rd</sup> Commission meeting was adjourned at 10:55 A.M.

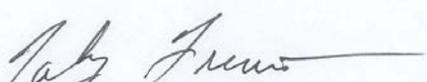
Prepared by:



Date: July 10, 2012

\_\_\_\_\_  
David Bailey  
Director of Administration

Approved by:



Date: July 10, 2012

\_\_\_\_\_  
Toby Frevert  
Secretary/Treasurer

**ROSTER OF ATTENDANCE**  
**203<sup>rd</sup> Commission Meeting**  
**June 14, 2012**

**Commissioners**

Illinois	Toby Frevert Phillip Morgan Marcia Willhite (PROXY for John Kim)
Indiana	Thomas Easterly
Kentucky	Ron Lovan Sandy Gruzesky (PROXY for Jerry Abramson) Bruce Scott (PROXY for Leonard Peters)
New York	Douglas Conroe Mike Wilson
Ohio	Paul Tomes Scott Nally Stuart Bruny
Pennsylvania	Charles Duritsa Greg Phillips Ron Schwartz (PROXY for Michael Krancer)
Virginia	Allen Newman (PROXY for David Paylor)
West Virginia	David Flannery Ronald Potesta Scott Mandirola (PROXY for Randy Huffman)
Federal	Kenneth Komoroski
Legal Counsel	Ross Wales

**Executive Director**

Peter Tennant

**Guests**

MaryLynn Loder – Chairman, POTW Advisory Committee; Erich Emery – US Army Corps of Engineers; Eriks Janelsins – PIACO; Ron Bargiel – Chairman, Water Users Advisory Committee; Jim Rock – PPG Industries; Lori Leffler – PPG Industries; Tim Cobaugh – PPG Industries; Tom Horan – PPG Industries

**Staff**

David Bailey, Jason Heath, Jeff Thomas, Jeanne Ison, Tracey Edmonds, Sam Dinkins, Joe Gilligan, Jerry Schulte

**DRAFT  
VARIANCE APPLICATION AND REVIEW PROCESS**

**Background**

Variances from Pollution Control Standards for Discharges to the Ohio River (hereafter referred to as “standards”) are allowable and may be granted pursuant to Chapter 1.6 of the Ohio River Valley Water Sanitation Commission’s Pollution Control Standards for Discharges to the Ohio River. Variances are allowable to Chapter 4.F Mixing Zone Designation and Chapter 5 Waste Water Discharge Requirements provided the uses set forth in Chapter 2 are maintained and the water quality criteria set forth in Chapter 3 are met.

The Standards require that applications include specific reasons for the variance, information on alternatives considered including elimination of the discharge, effluent limitations that the applicant believes can be met with the highest level of treatment achievable, demonstration that the uses set forth in Chapter 2 of the standards will be maintained, that the water quality criteria set forth in Chapter 3 are met, and any additional information the Commission deems pertinent to making a decision, including, but not limited to, the NPDES permitting state regulation that would allow the requested variance absent the ORSANCO standard.

The Commission will provide opportunity for public comment in its consideration of any variance request. A variance may be granted for a period not to exceed the life of the applicant’s NPDES permit; however, an applicant may apply for a variance renewal prior to the expiration of the permit.

**Administration**

Formal requests for variances must be submitted clearly in writing to the state and Commission. The amount of time necessary for ORSANCO’s Pollution Control Standards Committee to consider the request, allow for public input, and the Commission to take formal action at one of its regularly scheduled meetings prior to forwarding it to the state permitting authority, would typically require a minimum of 270 days.

The following information with all supporting documentation, including cost information, will be required to accompany the formal request:

- 1) Permit number, outfall number(s)
- 2) Pollutant for which variance is requested.
- 3) Discharge flow (provide most recent 12 months of data).
- 4) Discharge concentration of pollutant for which the variance is being requested (provide most recent 12 months of data).
- 5) Describe and provide all in-stream, biological, and other data collected to support determinations of the status of Ohio River designated uses.
- 6) Describe the current treatment system for the discharge.
- 7) Is the current treatment system the best available technology? If yes, explain how this was determined. If no, describe the best available technology, expected resulting effluent quality, and costs.
- 8) Is the current performance of the in-place treatment system optimum? If no, describe what could be done to improve performance and provide cost information.
- 9) What alternative treatment systems have been investigated and why have they not been installed (provide justification and supporting information)?

- 10) How has elimination of the discharge been investigated? Provide justification and information to support why this cannot be achieved.
- 11) What is the best effluent quality (in terms of pollutant concentration) that can be achieved and provide a minimization plan that describes how that will be achieved.
- 12) Provide a plan with schedules and costs that describes how in-stream criteria will be met and how designated uses will be maintained.

### **Public Notification**

Within 30 days of receipt of a formal request for variance, the Commission shall notify the public that a variance application has been received. The variance application and all supporting materials will be posted to the Commission's website. After an initial recommendation regarding disposition of the variance application has been made by the Pollution Control Standards Committee to the Commission, a 30-day public comment period will be held prior to the full Commission making a final determination at one of its regularly scheduled meetings. A public meeting may be held near the applicant's facility should a request be received.

### **Process**

Applicant submits a formal request in writing to the state and ORSANCO with all supporting documentation.

ORSANCO makes public notification within 30 days of receipt of the application and posts the application and all supporting information to the website.

The Commission's Pollution Control Standards Committee makes an initial determination whether to grant or deny the variance request.

ORSANCO makes public notification with a 30-day comment period announcing its preliminary decision and rationale.

A public meeting near the applicant's discharge may be held.

The full Commission takes action at one of its regularly scheduled meetings. Should the variance be granted, it becomes part of the Commission's Pollution Control Standards which requires the typical standards review process necessary to revise the standards.

### **Criteria for Variance Approval**

- 1) Demonstration that with existing treatment certain specific requirements of Chapter 4.F Mixing Zone Designation or Chapter 5 Wastewater Discharge Requirements cannot be met.
- 2) Demonstration that there are no reasonable alternative treatment technologies available to meet all requirements of Chapter 4.F and Chapter 5.
- 3) Demonstration that there are no reasonable alternative treatment technologies that would reduce or eliminate the current discharge.
- 4) An adequate pollutant minimization plan has been submitted that describes what will be done and when to evaluate the feasibility of meeting all requirements of Chapter 4.F and Chapter 5 prior to the next permitting cycle and to ensure minimization of the pollutant being discharged.
- 5) Determination of the best effluent quality currently achievable, proposed effluent limitations that can be met on a routine basis, and demonstration that proposed limits will meet all requirements of Chapter 2 Designated Uses and Chapter 3 Water Quality Criteria.

**PPG Industries, Natrium, WV Facility Mercury Reduction Plan**

ORSANCO has requested a 5 year mercury reduction plan beginning in 2014. However, PPG would like to highlight mercury reduction efforts beginning in 2012. Additionally, information requested on anticipated expenditures is not provided since the amount of time and resources required to complete the identified projects is unknown at this time.

<b>Projects</b>
<b><u>2012</u></b>
Continue to evaluate the new well water mercury treatment system and identify areas for operational improvement and optimization to further reduce the mercury discharge concentrations. <ul style="list-style-type: none"> <li>• Optimize sand filter performance</li> </ul>
Redefine internal sewer sampling protocol based upon current mercury concentration.
Investigate installation of dewatering station to remove Hg contaminated solids and reduce loading at process water mercury treatment.
<b><u>2013</u></b>
Complete installation of dewatering station to remove Hg contaminated solids and reduce loading at process water mercury treatment.
Review and evaluate the mercury treatment system operational data collected during 2012 and identify methods for improvement and implement as necessary.
Investigate collection and treatment of non-captured storm water near 7 circuit building.
Continue to collect samples at the specific internal sampling locations to monitor mercury concentrations in the sewer. Ensure elevated mercury concentrations are investigated and appropriate corrective actions are implemented.
Investigate and evaluate new mercury treatment technologies as they become available for potential application at the Natrium facility.
<b><u>2014</u></b>
Review and evaluate the mercury treatment system operational data collected during 2013 and identify methods for improvement and implement as necessary.
Based on 2013 evaluation of storm water collection near 7 circuit, design and install system to collect contaminated storm water.

Continue to collect samples at the specific internal sampling locations to monitor mercury concentrations in the sewer. Ensure elevated mercury concentrations are investigated and appropriate corrective actions are implemented.
Inspect and clean sewer lines previously lined as needed. Clean accumulated sediment from sumps, manways, and catch basins in sewer system.
Investigate and evaluate new mercury treatment technologies as they become available for potential application at the Natrium facility.
<b><u>2015</u></b>
Continue to collect samples at the specific internal sampling locations to monitor mercury concentrations in the sewer. Ensure elevated mercury concentrations are investigated and appropriate corrective actions are implemented.
Collect samples to determine mercury content of sediment in sumps, manways, and catch basins in sewer system and clean as necessary.
Investigate and evaluate new mercury treatment technologies as they become available for potential application at the Natrium facility.
<b><u>2016</u></b>
Continue to collect samples at the specific internal sampling locations to monitor mercury concentrations in the sewer. Ensure elevated mercury concentrations are investigated and appropriate corrective actions are implemented.
Inspect and investigate impact of cleaning additional sewer lines and sumps
Collect samples to determine mercury content of sediment in sumps, manways, and catch basins in sewer system and clean as necessary.
Investigate and evaluate new mercury treatment technologies as they become available for potential application at the Natrium facility.
<b><u>2017-2019</u></b>
PPG will continue to investigate opportunities to further reduce mercury concentrations via identification and elimination of historical sources and/or treatment.